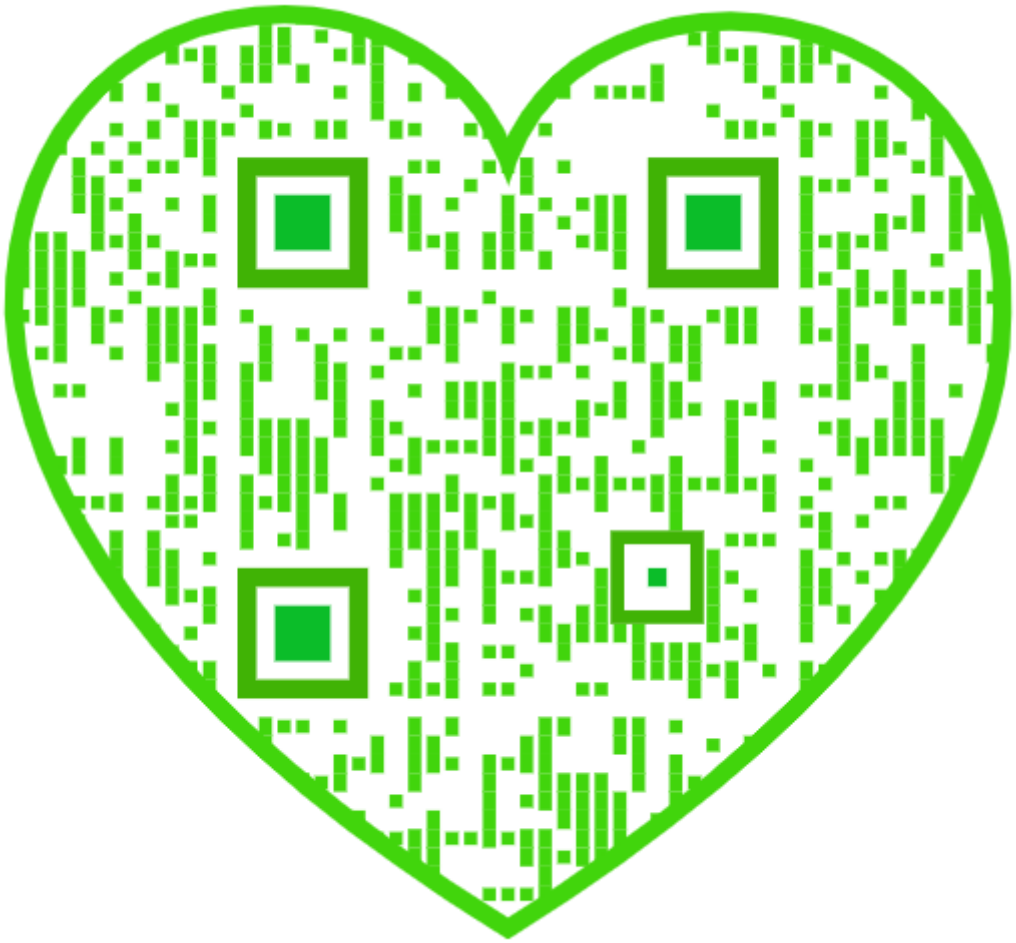
AN INTRODUCTION TO THE STUDY OF HYPNOTISM



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AN INTRODUCTION

TO THE STUDY OF

HYPNOTISM

EXPERIMENTAL AND THERAPEUTIC

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PREFACE

This little book is an attempt to supply a simple answer to the question "What is Hypnotism?"—a question which is frequently addressed to me. It makes no effort to range itself with the many larger works on the subject, but intends rather to serve as an introduction to these. I have treated the matter mainly from the experimental point of view, but my description has, I am fully aware, many deficiencies. It is always difficult to know what to select in an elementary work, and I have probably made many mistakes both of omission and commission. Those who are already familiar with the subject will, I fear, find nothing new in these pages. It is intended solely for those who as yet know nothing of hypnotism, and to such inquirers it may prove of some service.

The tone may also be somewhat dogmatic, though, I hope, only in regard to theories which are practically universally accepted.

The account of the phenomena has already appeared

as a separate paper in *The General Practitioner*, and is drawn entirely from experiments made by myself, either alone or in conjunction with Professor J. N. Langley. The theories, or rather the foundations on which they rest, are indicated rather than described, and I have not discussed at all the various views held by different observers. The medical aspect has been only briefly considered.

My best thanks are due to Mrs. R. A. Taylor for revising the work, and for much help and many valuable suggestions.

H. E. WINGFIELD.

44, Welbeck Street, W.
April, 1910

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AN INTRODUCTION TO THE STUDY OF HYPNOTISM

CHAPTER I

INTRODUCTORY

First workers in hypnotism—The definition of hypnosis—The phenomena of suggestion—Hypnosis as a state.

From immemorial times in the history of mankind the phenomena now classed under the name of hypnotism appear to have been known as isolated facts. Clothed in the guise of the supernatural, regarded sometimes as religious manifestations, sometimes as the results of magic spells or as the work of spirits, they were, of course, unrecognized as a group of effects due to a common and natural cause.

That they had a common origin was first suggested in quite modern times by the experiments of Mesmer at the beginning of the last century. Though he did not comprehend the real character of the phenomena which he produced, yet to him must be ascribed the merit of perceiving that they were due to some

natural cause, and of first drawing the attention of men to the problem of their explanation. Mesmer believed that the phenomena emanated from some kind of "fluid," and even to this day similar ideas are common among the general public, and influences under the names of "will-power" and "animal magnetism" are invoked to explain the facts.

Mesmer was followed by the surgeons Esdaile, Elliotson, and Braid, who were attacked by the majority of the medical profession with that animosity which invariably greets the discomposing pioneers of any unfamiliar idea.

To James Braid, the last of the three, belongs the credit of having first clearly perceived that the phenomena were due, not to any mysterious or supernormal emanations, but to the power of suggestion alone, acting on a subject whose suggestibility has been artificially increased. This view, which has been abundantly confirmed by Liébeault and the Nancy school, is now universally accepted. The researches of modern times are mainly attempts to systematize the phenomena, to explain how it is that suggestion arrives at such results, and to define the nature of the condition which is characterized by such a marked increase of suggestibility. The first of these aims has to a great extent already been successfully accomplished, but the others seem a long way from complete realization.

A suggestion is, of course, simply the implantation or the development of an idea in the mind of the

person experimented on. The suggestion may come from without or from the subject himself.

I. The Definition of Hypnosis.

Various attempts have been made to define hypnosis, the condition of artificially increased suggestibility. Some merely express the theories which different authors hold as to the nature of hypnosis. Thus Myers regards suggestion as "a successful appeal to the subliminal self." Sidis defines hypnosis as physiologically "the inhibition of the inhibitory centres," and so on.

Others convey its characteristics as a state in which certain specified phenomena occur; and this kind of description, in the present state of our knowledge, seems to be open to the least objection.

Bernheim says hypnotism is the production of a psychical condition in which the faculty of receiving impressions by suggestion is greatly increased. But, as Dr. Lloyd Tuckey indicates, this definition does not recognize the extraordinary increase of power to carry out accepted suggestions which is always found in hypnosis.

If I might hazard a definition, I should say that *hypnosis is a psychical condition in which suggestions are not only much more easily accepted, but are also realized with an intensity much greater than is possible to the normal state.* For, however eagerly a man may receive a suggestion in his normal state, it is quite clear that it can be realized only within certain restrictions.

Thus, if I suggest to a lady in her normal condition that her dress is on fire, though she may at once accept the suggestion and act accordingly, yet when she sees that her dress is really not burning at all, the suggested idea will be immediately dissipated. But, as we see later, if she be in deep hypnosis, so vivid will be the realization that she will believe she actually sees the flames and smoke, and so becomes subject to a hallucination.

II. The Phenomena of Suggestion.

The following simple experiment will show the effect of a suggestion; I select it because it is the only one I know which practically never fails. Assure anyone that if he takes a pinch of snuff, or even pepper, he will be unable to sneeze, and it will invariably happen that after taking it he cannot do so. Perhaps the suggestion may be made stronger by an offer to bet on the result. It is quite safe to bet; I have never seen the suggestion fail. Yet it is entirely ineffectual to prevent sneezing in a person with a cold.

It is, perhaps, unnecessary to point out that the subject of the experiment will be quite impervious to other suggestions. Thus, if he be told that he must get up from his chair, and cannot help doing so, he will merely smile contemptuously and remain seated where he is. But, as we shall see later on, by what are called hypnotic processes his condition can be so altered that if he be told, for example, that he must

get up, or that he cannot get up, he will have to obey the suggestion, even if he resist with all his power.

We shall find, too, that certain groups of suggestions will act readily, while other groups are difficult to enforce, and that, as the subject is more deeply hypnotized, these more difficult suggestions are more and more effective. So it becomes possible to divide the hypnotic state more or less accurately into stages, each stage being characterized by the particular group of phenomena which can be successfully suggested therein.

One of the easiest of these suggestions is that the subject cannot open his eyes. He may struggle with all his might; in spite of his efforts, he cannot do it. But here we stumble across a remarkable fact. It not infrequently happens that the subject is quite convinced that he can open his eyes, and it is only when he actually attempts it that he realizes by failure that he cannot do so. Now, it is obvious that the only effect of the suggestion that he cannot open his eyes will be the creation of a belief to that effect. But if the subject have no conscious conviction that he cannot open his eyes, it is clear that the idea does not exist in his waking consciousness. Where, then, is the idea concealed?

Again, some subjects can be made to pass into what is known as somnambulism, or the deep state of hypnosis. When they are awakened from this condition, in the majority of cases we shall find that the

memory of all the events which occurred during this period has vanished completely. The somnambulist may have been walking about and talking or acting under the influence of some suggested delusion or hallucination, but still, on awakening, he will remember absolutely nothing of all this. Yet, if the sleeping condition be again induced, he will remember all the events of his previous sleep. The ideas, then, still continued, but where were they stored? Again, if during his sleep he be commanded to perform some action after he wakes, he will perform it, though he has no conscious recollection of the command. Where, one asks again, was concealed the idea that prompted the action? All through the study of hypnotism this question is the one great problem that constantly confronts us, and the most fascinating part of the whole inquiry is, I think, the hunt for the hiding-place of these apparently lost but really persistent ideas.

III. Hypnosis as a State.

It is often said, after Bernheim's dictum, that hypnosis is nothing but suggestion. But, as Sidis points out in his admirable work on the Psychology of Suggestion, "If hypnosis be nothing but suggestion, by what is it induced? Why, by suggestion. Suggestion is thus its own cause." It seems as though attention had been so concentrated on the striking *phenomena* produced by suggestion that the *condition* of increased suggestibility—or hypnosis, for the terms

are synonymous—without which suggestions are absolutely ineffectual, has been ignored. But this increase of suggestibility is merely one of the characteristics of a new psychical condition, which must be accounted for just as much as the effects of the suggestions which this, and this alone, renders possible. The condition appears to be due to some recondite change in the relations of the different parts of consciousness. But this will be better understood when we come to consider the rôle of the sub-consciousness in a later chapter.

Sidis gives the following conditions as essential to the production of hypnosis:—fixation of attention, monotony, limitation of voluntary movements, limitation of the field of consciousness, inhibition of all ideas except those upon which attention is to be concentrated. So that hypnosis does, as a matter of fact, depend upon other factors besides mere suggestion. The factors are so simple and natural that it is no wonder that their presence is often unnoticed and their necessity unrecognized, for in making formal suggestions almost anyone would quite instinctively see that they were respected, without being in the least aware of the fact that he was arranging conditions without which his suggestions would be nullified.

Once hypnosis has been induced sufficiently to enable even the simplest suggestions to be effective, there is no doubt the phenomena evoked by the suggestions do of themselves tend to increase sug-

gestibility still farther—in other words, to deepen hypnosis. Thus, I hypnotize a subject and ask him to lay his hand on mine, and suggest that he cannot take it off. The suggestion may, of course, succeed or fail. If it fails, I try a suggestion which, I know from experience, can be more easily enforced. I make him shut his eyes, and suggest that he cannot open them. The suggestion probably succeeds. I now tell him that he can open his eyes, and again repeat my first experiment, trying to fix his hand to mine by suggesting that he cannot take it away. This time I succeed. Now, it is quite clear that he is more suggestible than he was when I made the first experiment, and it is equally clear that, had I failed to seal his eyes, I should have found him as refractory as ever to suggestion number one. What, then, has made him more suggestible? Clearly not the suggestion that he could not open his eyes in itself, for if it had failed it would have been powerless to change his condition. It was the *success* of the suggestion that increased his suggestibility: it was the phenomenon of inability to open the eyes that made him more suggestible. To put the matter in another way, successful suggestion will induce hypnotic phenomena, and the phenomena in their turn induce an increased suggestibility.

Many consider that the phenomenon of loss of memory and its recovery in subsequent hypnosis is not due to suggestion, but is part and parcel of the deep hypnotic state.

This phenomenon occurs almost constantly in good subjects, without any direct suggestion of amnesia. Bramwell, indeed, states that "with nearly everyone the idea of hypnosis represents a kind of sleep, with subsequent loss of memory," so that the very suggestion of sleep may be in these cases followed by amnesia. But this does not account for the return of memory during a fresh hypnosis, and, while perhaps it might explain why the suggestion of sleep should produce amnesia in those who expected such a result, this explanation seems hardly applicable to those cases in which somnambulism appears without any suggestion of sleep whatever. It is well known that the production of hallucinations often induces somnambulism, with subsequent amnesia. With many—in fact, with most of the Cambridge subjects whom I sent into somnambulism—I induced it in the first instance by this method, making no suggestion of sleep. I suggested as strongly as I could a visual hallucination, generally of a bright star, and then changed it for another, and so on through a succession of different hallucinations. In almost every case the subject experienced complete amnesia on awaking, followed by a recovery of memory when again hypnotized. It is difficult to see how suggestion could well enter here, and one has to account for the fact that the loss of memory seems to follow the production of hallucinations with a constancy which certainly seems to indicate some causal relation between the two.

It is merely an assumption that because most of the

phenomena of hypnotism are due to suggestion, the amnesia and its recovery are necessarily also due to it. But we have no right to make any assumption of this kind; we must abide by the results of experiment.

According to the Nancy experimenters, anæsthesia also may occur spontaneously without suggestion in the deep state. This phenomenon, if correctly stated, would be another case in point.

Post-hypnotic amnesia and the recovery of the memory during subsequent hypnosis (if, as I am inclined to think, not due to suggestion) would seem to reveal a change of *state*, which is rather the consequence of the phenomena of hallucination or of the condition induced by the suggestion of sleep. It seems that, whilst amnesia can be induced by direct suggestion, it may also occur not as a response to that, but in response to, or as a concomitant with, phenomena occasioned by suggestion.

But, in any case, the saying that hypnotism is nothing but suggestion merely begs the whole question. It tells us nothing of the mechanism or of the changes in consciousness which cause the increased suggestibility, and gives no clue to the astounding intensity with which suggestions are realized. In dismissing the subject for the present, it may be worth while to say that even if it were true that all hypnotism is suggestion, that is not a justification for saying that all suggestion is hypnotism, an inference that seems to be sometimes drawn.

It is undeniable that there is still something

intellectually unsatisfying in all accounts of the causes of hypnotism, and that further exploration may end in exciting discoveries. It does seem as if the process were partially involved in the obscure problem of personality, and as if some factor at least were, like other kinds of personal influences and impressions, the natural and logical product of the combination of certain psychical qualities which cannot be determined and discriminated as yet, while the science of psychology still stammers in its infancy.

CHAPTER II

THE SUB-CONSCIOUSNESS

The sub-consciousness—Evidence of its existence (Sub-conscious chain of memory—Influence of sub-consciousness on waking activities—Motor and sensory automatisms—Passive attention—Multiple personalities)—Relation of primary and secondary consciousness (Its nature—Its bearing on hypnosis).

Though many attempts have been made to explain the phenomena of hypnotism, as yet none of these theories seems completely to cover the facts. On the physiological side numbers of hypotheses have been advanced, but nearly all have been found untenable. The theory of dissociation, which supposes the formation and breaking of links between the various brain centres by a physiological process, has much to be said in its favour: it has been ably discussed in a paper by Dr. McDougall in *Brain*.*

But though there must, of course, be a physiological side to hypnotism, it is in the psychological domain that speculation has been most fruitful. The great result of all investigations has been to emphasize the immense importance of the rôle played by the sub-consciousness, variously termed the "subliminal" or

* "The State of the Brain during Hypnosis." In *Brain*, July, 1908.

"secondary" self, consciousness, or personality. The terms secondary or subliminal "self," or "personality," are, I think, objectionable, as they appear to imply the normal existence of something which may properly be conceived as a real separate personality —an assumption for which at present there is not sufficient warrant. It is to Myers that we owe the recognition of the supreme importance of the sub-consciousness, and of the part it takes in producing the phenomena of hypnotism.*

What, then, is the evidence for the existence of this secondary consciousness, and what are its functions and powers?

I. Evidence of Existence of Sub-consciousness.

(*a*) *Sub-conscious Chain of Memory.*—If a good hypnotic subject, capable of passing into the somnambulistic state, is put to sleep, he may be made to

* In his recently-published work on Psychotherapy, Professor Munsterberg boldly states that "the sub-conscious" has no existence. This hypothesis compels him to assume that the most complex phenomena generally ascribed to sub-conscious action, such as automatic writing, even when it plainly confesses an intellectual origin, are in reality simply automatic physiological processes, into which no consciousness of any kind enters. It is of the same nature, he says, as the playing of the piano without thought of the special movements of the hands—an automatic reflex. This is strangely like a return to Carpenter's old idea of "unconscious cerebration." It is unlikely that such a view will pass unchallenged. It leaves no satisfactory theory of hypnotism, which Munsterberg attempts to explain as due to abnormal attention to the operator on the part of the subject.

talk, walk about, and see any suggested hallucinatory object. Except for the fact that he exhibits as a rule little or no spontaneity, he might be mistaken for a man in his normal condition, speaking and acting as though he were awake. Yet when he is aroused we find that he has no recollection whatever of what he was doing during his sleep.* If, however, he be sent to sleep again, the memory of the events of his previous hypnosis will have returned, and will persist as long as he remains in that condition, only to vanish again the moment he is re-awakened. More than this, we shall find that during his sleep he remembers the events of his waking life just as well as he does when awake.

We see here one important point of evidence: he has two apparently separate chains of memory—the chain of the sleeping state, which comprises the actions and events of the sleeping and normal life as well; and, secondly, the chain of the waking state, that which is familiar to us all, and which comprises the events of the waking life alone.

(*b*) *Influence of Sub-consciousness on Waking Activities.*—But we may now make a fresh experiment. For example, I told a lady who was in somnambulism that after awaking she would turn on the electric lights in my room. I then awakened her, and found that she had no recollection of anything that had passed during her sleep. After about a minute she began to look at the electric-light switch,

* This amnesia can be prevented by suggestion during somnambulism, and the recollection can often be revived by suggestion during the waking state.

and at last said: "Dr. Wingfield, what is that on the wall?" I told her that it was merely the electric-light switch, whereupon she said: "Oh, is it? It is quite different from those in our house. May I try it?" I told her she might, and she turned it on.

Or take another case illustrating the same point, but in a more striking manner. While I was at Cambridge I hypnotized, for experimental purposes, an undergraduate whom we will call X. X, I am sorry to say, was not a hard-working person. It was past the middle of the summer term, and, though he had to sit for the theological special examination at the end of the term, he had not even procured the books to read on the subject. One day I hypnotized him, and told him while he was asleep that the next day he would begin to work at nine o'clock in the morning, and would continue his labours from nine till one, or at least four hours every morning and two hours every evening. On awaking he remembered absolutely nothing, either of this suggestion or of other experiments which I made during his hypnosis. Next morning he was early astir, buying books, paper, etc., and settled down to work at nine o'clock. He had promised two friends to accompany them to Newmarket that morning, and they accordingly came to fetch him; but he absolutely refused to go, and resisted all persuasion. I had him watched by a friend who lived in the same house, and it was quite curious to observe how accurately the suggestion was obeyed. He would sometimes break off work in the

middle of the morning to play the piano or rest, but he always on these occasions exactly fulfilled his four hours of work, so far as our observations went. On two occasions he went out to dances, not returning until twelve, but each time on reaching home it struck him that he might do a little work before going to bed, and he religiously completed his two hours. I am glad to say he passed his examination at the end of the term.

Now, in these two cases we have a new phenomenon. We saw before that the sleeping consciousness and the waking consciousness differed as to the matter of their memory chains; but here we find that a command, given during sleep and apprehended only by the sleeping consciousness, is carried out during the waking state, and this notwithstanding that the subject is utterly unaware that any command has been given. Here, then, we begin to see that the sleeping consciousness may affect us even when we are wide awake, and if we examine closely, we find that the result of such experiments is usually simply the creation of a desire or impulse to perform the suggested action, a desire of whose origin the subject is completely ignorant. In the first experiment the impulse to turn on the light was produced; but the patient did not know that it was originated in a command from myself, and hesitated to carry it out directly. Her question was clearly a subterfuge by which she hoped to satisfy her desire without transgressing the rules of politeness.

(c) *Intellectual Activities of the Sub-consciousness.*— Let us now consider another experiment. During the May week of 1886 I hypnotized G., an undergraduate, one evening, and told him that he would bring me a poem of three stanzas on the May races, on the following evening at nine o'clock. On awakening he did not recollect the suggestion, or any of the occurrences of his sleep. Next day he came to luncheon with me. I hypnotized him again, and he fell at once into a deep somnambulism. I now asked him what I had told him to do, and he answered that he was to write a poem and bring it to me at nine o'clock that evening. I asked whether he had composed any of it, and he said he had made the first verse. This, he said, was as follows :

> " Oh, Trinity, Pembroke, John's, Caius,
> Soon, soon in your shoes shall you shiver ;
> You may swagger as much as you please,
> But the Hall will be head of the river."

Not very brilliant poetry, perhaps! However, on awaking he knew nothing of what had been said, but at nine o'clock he brought me the whole poem of three verses, the first being that given above. He told me that at half-past eight he had suddenly been seized with the idea that he would write a few verses on the May races, and sat down to do so. He said he had written them straight out as they came into his head, seemed rather pleased with his performance, and was evidently disappointed when I told him that I did not think much of them.

Here we have the verses composed in obedience to a suggestion addressed to the secondary consciousness, and without the knowledge of the waking consciousness. The last two verses, at any rate, and possibly the first, were composed during hours of wakefulness, and yet unconsciously in the ordinary acceptation of the term. The secondary consciousness, then, appears to be capable of intellectual activity, and this activity may occur while the person concerned is wide awake, though, of course, quite unaware of these processes.

I have given the above experiments out of many hundreds, because they are in themselves so simple and so easily carried out. The reader will not find it difficult to make successful experiments on similar lines.

So far as we have gone, we see that in somnambulism it is only the waking consciousness which is in suspension. The activity of the sub-consciousness persists during both the waking and the somnambulic states, so that some believe that it never sleeps nor rests, but is always active.

We may now turn to evidence other than that derived simply from hypnotic experiments.

(*d*) *Motor Automatisms* (the Planchette and Automatic Writing).—Most people have heard of a toy called a planchette. It consists merely of a heart-shaped board, about 8 by 10 inches, with two wheels as supports, the third support being a pencil firmly fixed in a hole in the board. The planchette is placed with the pencil resting on a sheet of paper, and the operator lays one or both hands gently upon it,

asking it a question. If the experiment succeeds, the planchette now begins to move in obedience to unconscious pressure, and writes an answer. The important point to notice is that in many cases the experimenter may be utterly unaware of what he has written, and the answer may mention facts of which he believes himself ignorant.

A still simpler plan bids the operator hold a pencil in his hand and rest it lightly on a sheet of paper. In answer to a question, the hand will then move independently of his will, and, as with the planchette, write a message the contents of which may be entirely unknown to him until he has read it. Only certain persons have the power of thus writing automatically, as it is called, but quite a large proportion of people can do so.

To return for a moment to the hypnotized subject in the state of somnambulism. Though on awakening he will have completely forgotten all the events of his sleep, yet if he be one of those who can write automatically, when his hand is placed on a planchette or provided with a pencil, and suitable questions are asked, the intelligence that governs the automatic writing will give answers which show that it is cognizant of all that took place during that sleep. For example, I hypnotized G., and during somnambulism I made him imagine that he was (1) riding with the hounds; (2) rowing a race in his college boat; (3) that next morning he would put a boot on one foot and a shoe on the other. On waking he remembered

none of these things. I then made him put his hand on a planchette, and asked, "What did he do first?" After a few meaningless scratches it wrote "Hunting." "What then?" I asked. "Rowed in the races," was the answer. "Did I tell you to do anything?" "Boot one, shoe one," said the planchette. But this particular experiment is so easy to make that I need not multiply examples.

In making experiments of this kind I was struck with one outstanding fact. The knowledge possessed by the planchette was exactly commensurate with that possessed by the subject during somnambulism. The sub-consciousness is therefore identical with the consciousness of the hypnotic sleep, and from this experiment we see that it can carry out actions without collusion of the waking or primary consciousness even when the subject is wide awake. That is to say, both the primary and the secondary consciousness may be acting independently, causing muscular movements at the same moment of time.

The following case strikingly reveals the action of the sub-conscious memory, and incidentally shows that the planchette may be of real use as a means of diagnosis. A gentleman, aged thirty, came to consult me concerning the following history: For nine years he had been oppressed by an indefinable dread of some terrible calamity. He had no idea what it was that he apprehended. For the first two or three years he had managed to control this terror, but after a rather severe attack of influenza it increased greatly, until it

became a constant horror, which never left him during his waking hours. His own medical attendant, the only person to whom he had confided his trouble, had died about six months before he came to me, and, perhaps because he had since then kept his condition of mind to himself, the obsession had increased to an extent which threatened to drive him to suicide. I saw him several times and tried hypnotism; but, though he was susceptible, I was unable to induce somnambulism, and suggestions seemed to have no effect on his dread. One day it struck me that I might find out the cause of his terror by automatic writing. He could, he thought, write with a planchette—at least he had once done so. I got a planchette, made him put his hand upon it, and asked: "Planchette, what is it that frightens him?" After a few moments the planchette made some scratches. I then said: "Don't make scratches; write an answer." After about half a minute's pause the planchette wrote: "Father's death." I did not let him see what he had written, but substituted a fresh sheet of paper, asking: "Why does that frighten him?" "Will die the same," was the reply. On inquiry I found that his father had died suddenly of pulmonary embolism, and that my patient, then a child of twelve, had witnessed the death-agony with great horror. This, then, was the cause of panic for which I had so vainly sought. I now tried direct suggestions against the possibility of his dying in this way, and in less than three weeks the old terror had

left him. It is worth noticing that even when I made suggestions against this particular idea, he remained quite sceptical as to his having any such notion whatever. He certainly had no conscious idea of the kind.

It is interesting to observe that one may sometimes get quite startling revivals of memory exhibited in automatic writing. I once compelled L., an undergraduate, to write automatically by the simple suggestion "Write." He immediately began writing, and covered sheet after sheet, without being in the least aware of what he had written. On examination I found that much of the matter was a revelation of secrets which he would not willingly have shared with anyone, so I was obliged to let him read the papers and give me such parts as he cared to show. But the remarkable point was that there were a few sentences in a language of which neither he nor I knew anything. I eventually found that it was old Spanish, and the explanation seems to be that in his childhood he used often to examine books in his father's library, and that some of these were written in old Spanish. Doubtless some of the sentences which he had read without understanding were retained in his sub-conscious memory, and reproduced under the influence of the suggestion "Write."

Automatic writing is an instance of what Myers called *motor automatism*—that is, of apparently automatic action really originating in the secondary consciousness. There are, of course, other forms of motor automatism, such as the table-tilting and

turning of the spiritualists, and, one may add, certain automatic movements in some cases of hysteria. Motor automatism may also occur quite spontaneously. Thus, a lady was just going to throw certain papers into the fire when she suddenly found her hand arrested. On looking down she saw that among the papers were some five-pound notes. She had doubtless unconsciously noticed them, and the impulse which prevented her from sacrificing them originated in her secondary consciousness.

(*e*) *Sensory Automatisms.*—But besides manifesting itself by automatic movements, the secondary consciousness is capable of producing sensory phenomena as well.

The most striking instance of sensory automatism, apart from hypnotism, is to be found in what has been termed crystal-gazing, a process much in vogue with spiritualists, who believe that the visions which they see are due to the influence of departed spirits.

The experimenter simply gazes into a glass ball, or glass of water, or some similar object, in the expectation of seeing visions; and, if he is successful, he soon sees pictures of various kinds in the crystal. A large number of people can do this, and it is perhaps mainly to these forms of motor and sensory automatism that modern spiritualism owes its strength.

These crystal visions may occur quite unexpectedly. A short time ago I was trying to hypnotize a lady, and made her look for a few moments at a cut-glass crystal held above her eyes. Almost at once she

exclaimed: "Oh! I see a dog. It is turning round; it is running away." This was succeeded by the appearance of a nurse wheeling a perambulator, and this again by a horse in a dog-cart. I gave up trying to hypnotize her by this method.

The tendency for apparently unnoticed facts to be reproduced by automatism is not uncommon. Miss Z., a well-known crystal-gazer, was one morning looking into her crystal, when she was startled to see in it the printed announcement of the death of a friend. She immediately went to look at a newspaper, and there she found the identical announcement. But she had previously glanced at the column of deaths, though she had not consciously noticed the paragraph in question.

These sub-conscious impressions may also be reproduced in dreams. Mr. C., a friend of mine, while in town lost a cigarette-case which he valued very highly. That night he dreamt that he was at a meeting at the L.C.C. offices (he had really been there that day), and in his dream he heard something fall. Looking down, he saw his cigarette-case. Next morning he got up early, went to the room where the meeting had been held, and found the cigarette-case exactly as he had seen it in his dream.

(*f*) *Passive Attention.*—It is not only in these abnormal and rare states that we find evidence of unconscious mental activity. In ordinary life we meet with it constantly in some form or other. Take the case of a man carrying a parcel. He picks it up

by the use of his waking consciousness; but, as he carries it, he relegates to some deeper consciousness the task of holding it, and goes about attending to a variety of things, quite forgetting the parcel, which he has entrusted to his sub-conscious self. Again, in walking through the street, though perhaps absorbed in conversation, he unconsciously avoids charging into others. Or watch the woman knitting and reading at the same time. She is conscious only of what she reads, the knitting being out of the field of her active attention. The term *passive attention* has been applied to the sub-conscious attention which controls procedures such as these, and it is obvious that the words denote a sub-conscious activity of some kind, and that we trust it in ordinary life to guard us from all kinds of mishaps. But, as far as I am aware, nothing is known of the conditions of memory in relation to this activity, so that it is not possible to say what connection it may have with the secondary self as we find it in hypnosis.

(*g*) *Multiple Personalities.*—I shall not attempt to deal with the questions involved in those rare cases in which the consciousness is liable to apparent disruption into one or more distinct personalities, such as in the well-known case of Sally Beauchamp. They are purely pathological, and, though the phenomena of the secondary consciousness do in a measure help to elucidate them, the explanation is still far from being fully understood, and is quite beyond the scope of this little book.

II. Relation of Primary and Secondary Consciousness.

(*a*) *Nature of the Relationship.*—It has been contended by some that the primary and the secondary consciousness are really completely separate entities, properly designated by the term personalities. But if we look more closely, we shall, I think, conclude that here—as, indeed, everywhere in Nature—there is no sharp line of demarcation. If we examine the condition of the memory of a subject for events occurring in the different stages of hypnosis, we shall find that as he nears the somnambulistic stage such memory is imperfect, and often very imperfect. Whilst he recollects some occurrences, he forgets others happening apparently in the same stage, though he can generally, but not always, recall these events if reminded of them. The condition of the memory between the waking and sleeping states appears to be one of extremely variable equilibrium, oscillating constantly, tending now to the waking, now to the sleeping state. So much is this the case that it is difficult to get constant results in experiments on memory in this middle phase when it begins to approach somnambulism.

On the whole, perhaps, one may regard the range of consciousness as analogous to the solar spectrum. The waking consciousness might be represented by the red end of the spectrum, the profound somnambulistic consciousness by the violet, and the deepest part,

which, we may suppose, is in relation with the visceral functions, by the ultra-violet invisible rays. Clearly, if we examine the red end of the spectrum, and compare it with the violet, we shall find a sharp line of demarcation between the two, for we shall have missed out the orange which bridges them. But if we look at the whole spectrum, it is obvious that it is continuous from end to end. And it is just in the middle part of the hypnotic condition that the conditions of memory are so elusive.

(*b*) *Its Bearing on Hypnosis.*—We may now briefly consider how the facts in this chapter illuminate the nature of hypnosis. We have seen that the consciousness of the somnambulistic state is the secondary consciousness, and we may infer from the fact that on awaking the subject has no memory of the events of his somnambulism that the activity of the primary consciousness is in suspension during the deep sleep. But we have seen that during the waking state the secondary consciousness is still active, and from the fact that during somnambulism the events of the waking life are remembered, we may infer that all suggestions given in the waking state reach the secondary as well as the primary consciousness. It is clear that in somnambulism we can examine the characteristics of the secondary consciousness in a state of complete detachment from the primary. Unfortunately, we cannot examine the primary consciousness in a similar condition of isolation, since, as we have seen, even in the waking state the secondary conscious-

ness is still sufficiently alert to be receptive. If we compare the normal with the somnambulistic state, we find that the most striking point of contrast is the difference in the degrees of suggestibility. The most evident characteristic of the latter state is its enormously *increased suggestibility*, which at once reaches the maximum degree of which the subject is susceptible. Nearly every suggestion is immediately accepted, and each idea so generated seems to be translated automatically into action. In fact, during somnambulism nearly every suggested idea gives rise with almost mechanical certainty to the corresponding cerebral reflex.

Yet while nearly every suggestion, whether it be inhibitory or imperative, or even if it be a suggestion of hallucination, is effective, occasionally some suggestion may fail to act even in somnambulism. It appears that, as a rule, the function of choice, though not extinct during somnambulism, is practically quiescent. Before it can be called into action there is, one may suppose, far more inertia to be overcome than in the normal state. But if the suggestion happens to run counter to some latent but more powerful idea or suggestion already dominating the field, it may be refused; and often no amount of insistence can prevail over the denial. However, whatever the cause may be, it is certain that the power of choice as shown by the rejection of a suggestion is rarely exercised in somnambulism.

The most striking result of the return to the normal

state is the constant exercise of the *power of choice*. Not every idea is now translated into action. The various suggestions are sifted by the primary consciousness, and only a few are chosen and allowed to act. The others are rejected; in other words, their action is inhibited. This power of inhibition, then, appears to be a function of the primary consciousness; and since, as we have seen, all suggestions given in the waking state reach the secondary as well as the primary consciousness, it is clear that the inhibition exerted by the primary consciousness must extend to ideas or impulses to action which may arise in the secondary consciousness in response to suggestions given in the waking state; otherwise there seems to be no reason why these suggestions should not be carried out. Briefly, the inhibitory power of the primary consciousness seems to extend through the range of both the primary and the secondary consciousness. But in somnambulism the primary consciousness is in more or less complete abeyance, and, of course, its inhibitory power is in suspension as well. To this fact, then, is due the great suggestibility that we find in somnambulism.

But the condition of total abeyance coexistent with somnambulism is merely the completion of a process of gradual suppression. It commences at the very beginning of the lightest stage of hypnosis. The initiatory suspension of the primary consciousness shows itself in the very earliest condition of hypnosis as a mere disinclination to act in opposition to a

suggestion. The subject can successfully resist if he tries, and, if induced to try by repeated challenges, will do so. Thus, if told that he cannot open his eyes, he makes no attempt to open them; but, if repeatedly defied, he may eventually rouse himself sufficiently to make the attempt, and will succeed. If asked why he did not open them at first, he will say simply that he did not wish to—felt, indeed, a strong disinclination to try. At a slightly more advanced stage he really feels that he cannot even try.

An amusing instance of this condition was afforded by an undergraduate, M. I had on a previous occasion lightly hypnotized him, and one afternoon happened to meet him in the rooms of a common friend. He was standing on the hearthrug, and, soon after I entered, said he must leave, as it was time for him to go to his coach. "But," I said, "you can't go. You can't get off the hearthrug." He laughed and protested that he could, but did not do so, and after a minute or two appealed to me to let him go, else he would get into trouble with his coach. I pointed out that he had just said that he could walk away, and asked why he did not do so if he desired. "Oh yes," he replied, "I could do it if I tried, but I can't try." This condition indicates a slightly more advanced stage in the "disaggregation" of consciousness, as it has been termed.

However, the various stages will be considered more in detail in a later chapter.

The more completely the primary consciousness is

suppressed, the more does suggestibility increase. In hypnotism suggestions do not act through the primary or waking consciousness; it is to the sub-consciousness alone that they successfully appeal. Obviously the more the secondary consciousness is liberated from the inhibitory control of the primary consciousness, the more suggestible does the subject become. The final result, when the process of suppression is complete, is, of course, amnesia.

The power of hypnosis, then, resides in the suppression, partial or complete, of the inhibitory forces of the waking or primary consciousness.

CHAPTER III

METHODS OF THE INDUCTION OF HYPNOSIS

Introductory — Test suggestions — Manner of conveying suggestions (Emphatic *v.* persuasive mode—Personality of operator—Susceptibility of subjects)—Conditions of suggestibility—Processes of induction (Physical methods—Method of Nancy School—Personal method)—Necessity of test suggestions — Method of Dr. Taplin — Allied forms of treatment (Dubois' method—Dr. Bramwell's method)—Awakening of the subject.

A KNOWLEDGE of the methods of inducing hypnosis is, of course, of great importance from the practical standpoint. To the mind of the beginner the actual induction of the hypnotic state often appears a formidable undertaking, encompassed with apparently insurmountable, though really imaginary, difficulties. The very simplicity of the processes employed creates in him a feeling that there really must be something more behind them than he sees or reads of; and, too often without even a trial, he concludes that he, at any rate, could never hypnotize anyone, whatever others can do. At heart, in fact, he feels that the successful hypnotist does his work by virtue of some peculiar and incommunicable gift.

But, if the principles which underlie the methods

are once grasped, the difficulty of inducing hypnosis will be found very slight, and, in the case of good subjects, absolutely non-existent; while with less amenable patients this comprehension will enable even the beginner to vary his devices to an extent limited only by his inventive ingenuity, so that probably, even with little practice, he will be able to hypnotize anyone who is capable of being hypnotized at all.

I. Test Suggestions.

The aim of all the methods is the same—to induce a condition in which the subject shall be partly or wholly incapable of resisting suggestions. When the attempt to produce this condition has been made, the only criterion of the result is the success or failure of some definite suggestion. Before making the effort, therefore, it is necessary to decide clearly what the first suggestion shall be; and this is a question of real importance, for we must choose such a one as is not likely to fail. Upon its consequences very much will depend, since, after the first suggestion has been given, the degree of suggestibility in the patient is markedly altered. Should he respond to it, his suggestibility is increased, sometimes enormously increased. If it be ineffectual, his suggestibility is diminished, sometimes so gravely that hypnotization by the operator who has failed becomes almost impossible, while the chances of success even for others are seriously prejudiced. The very fact that

a suggestion has captured the subject leaves a general impression on his mind quite apart from that involved with the nature of the particular suggestion. It creates or helps to strengthen an expectancy that other suggestions will be also irresistible, or at least very difficult to resist, and this mental attitude of itself may undoubtedly deepen the hypnotic state. The sense of frustration and discouragement consequent on the failure of a suggestion, on the other hand, naturally develops into an impression exactly the reverse of this.

The phenomena of suggestion found by experience to be most readily produced are as follows:

1. A sense of quietude and repose.

2. A sensation of warmth on some part of the body on which the operator lays his hand.

3. A feeling of somnolence.

4. A sensation of heaviness of the lids; inability to prevent closure of the eyes.

5. Inability to open the eyes when closed by the previous suggestion.

6. Inability to open the eyes when they have been voluntarily closed.

I have given them roughly in the order of facility from the operator's point of view. In some subjects number three can be induced more readily than number two.

It will be observed that number one is a rather indefinite kind of suggestion, and that the suggestions become more precise according to their place in the sequence.

As aids in deepening the hypnotic state, the earlier suggestions are decidedly less effective than the later ones. Thus, a suggested feeling of quietness and repose, though it indeed makes the subject more susceptible, does so only in a comparatively slight degree. The definite feeling of warmth undoubtedly produces a greater hypnotic result, while the closure of the eyes, with inability to open them, brings about a marked increase of suggestibility. So that it unfortunately happens that the easier the suggestion is to enforce the less hypnotic effect it has, the reason being that these various phenomena belong really to different stages of the hypnotic state, the first to the earlier and those subsequent to the later stages. Our aim is to evoke a phenomenon connected with as deep a condition as we can reach.

II. Manner of Conveying Suggestions.

We have now to consider the best manner of conveying the suggestions. Are they to be given in a commanding voice, with as much emphasis as possible, or are they to be spoken quietly and persuasively?

The chief factors in the strength of a suggestion are, I think—

1. Emphasis and commanding tone.
2. Repetition, which greatly increases the effect.
3. The personality of the operator.

The emphatic and the quiet methods of giving suggestions have each certain advantages and disadvantages.

1 and 2. *Comparison of the Emphatic Mode with the Repetitive Mode.*—An emphatic suggestion is liable to cause a conscious, or at any rate partly conscious, resistance on the part of the subject, and resistance may make hypnotization very difficult. Not infrequently it awakens a deliberate conflict of will.

Again, it cannot be continuously repeated without losing all its force, so that in using a strong suggestion for the first trial one is, so to speak, carrying all one's eggs in one basket. The suggestion once given, success or failure must follow immediately, and failure is certainly likelier than with the gradual methods. On the other hand, if it be effective, and especially if it be effective in spite of an effort at resistance, it has a far more decided and instantaneous victory than any milder suggestion can have.

Young people from about twelve to twenty-two years of age are very susceptible to strong suggestions; and the uneducated classes, even in later life, are equally so. If time is of great importance, and the patient belongs to one of those two classes, it may be worth while to try suggestion in the more commanding form. The most suitable phenomenon to induce in this way is, I think, inability to open the eyes. I often give this as a first suggestion to my patients when they are young or of the hospital class, and, though it does not invariably take effect, the proportion of successes far outnumbers the failures.

On the whole, however, I do not recommend this

method to any novice; it takes a certain amount of confidence, and it is perhaps as well to defer it until that has been acquired. When given without any great emphasis, on the other hand, a suggestion may be repeated again and again, not only without loss, but with actual gain in power. It becomes a persuasion rather than a command, and should arouse no conscious resistance whatever. The power which it forgoes by the absence of emphasis may be more than compensated for by that accumulated in repetition. In practice this mild and persistent method has the disadvantage that a considerable time may elapse before any marked degree of hypnosis is attained. It may demand many sittings. Each of the six suggestions may be enforced in their order. When number one is successful, number two may be tried, and so on, until at last we succeed with all six, and the subject cannot open his eyes when they have been sealed by suggestion.

Comparing the two methods, we see that the advantage of the strong and emphatic mode is the rapidity with which it acts, the disadvantage being its uncertainty. On the contrary, the more gradual way of giving suggestions persuasively, and increasing their effect by frequent repetition, is comparatively very slow, but very sure.

I suppose, if it were always possible to choose, the slow method would invariably be regarded as preferable to the rapid one; but in actual medical practice the choice not infrequently lies between im-

mediate hypnosis on the very first sitting or not at all. Many patients will not contentedly undergo a number of sittings with no evident hypnotic effect. They expect immediate results; and I have sometimes had patients sent to me who have been led to believe by their medical men that one sitting is enough to induce the condition. Some patients come up to town for a day to discover whether they are suitable subjects for hypnotic treatment, and regard the first trial as conclusively settling the point. Certainly in these cases it is wiser generally to decline to attempt treatment under such conditions, but many circumstances may make refusal almost impossible.

I do not think that anyone who has successfully attempted to seal the patient's eyes by a single emphatic suggestion is ever likely to abandon this method entirely, on account of the great economy of time and the power it has of instantly increasing the suggestibility of the subject, while the extreme precision with which the whole process can be carried out is eminently satisfactory.

3. *The Personality of the Operator.*—The stronger a suggestion the more readily does the subject respond, so that, granted a fixed degree of suggestibility, the subject may answer to a strong suggestion, and yet be quite unaffected by the same suggestion if it be weakly conveyed. The strength of a suggestion may vary enormously. It depends largely upon the tone of voice in which it is given, the gestures accom-

panying it, and the personality, dominating or otherwise, of the operator. It is natural, therefore, that some persons should be much more successful than others in enforcing obedience to their suggestions. Those who can impress their subjects most readily will be the best hypnotists. A naturally commanding though tolerant temper, considerable human sympathy, and as much knowledge as possible of psychology in the widest sense of the word, are qualities which will greatly strengthen the worker in treatment by suggestion.

All persons are, of course, not equally susceptible to hypnotism. Of healthy persons, however, over 90 per cent. are probably more or less susceptible. But when we use hypnotism for therapeutical purposes we are not dealing with healthy normal subjects: unfortunately, the majority of the nervous disorders which we are called upon to treat by suggestion do of themselves tend to diminish the susceptibility of the patients. Some maladies, it is true, such as dipsomania, seem, if anything, to make their victims more, rather than less, susceptible. But in a large number of neurasthenics the power of concentration is either entirely gone or very much weakened, or else self-suggestion presents an almost insuperable obstacle. Imbeciles cannot be hypnotized at all, and of lunatics all but a very small proportion appear to be unimpressionable. Bramwell states that out of the first hundred patients he had in London only twenty-two were completely refractory. Thirty-six

passed into light hypnosis, thirteen into deep hypnosis, and twenty-nine into somnambulism.

Sex seems to make no material difference to susceptibility; nor, apparently, according to Bramwell and Liébeault, does age. Children from three years of age and upwards are readily influenced. The youngest patient I have had was five years old, and he was readily hypnotized; while Bramwell records a successful case in a child of three.

III. Conditions of Suggestibility.

But with the vast majority of people we must employ some preliminary method of rendering them suggestible at all. Very few are sufficiently suggestible in their normal condition. I do not think that we can do better than recall the conditions enumerated by Sidis as tending to induce hypnosis. I give them again here:

1. Fixation of attention.
2. Monotony.
3. Limitation of muscular movements.
4. Limitation of consciousness.
5. Inhibition.

1 and 4. The really important condition here is clearly the *limitation of consciousness*, the others being obviously subservient to that end. The subject's attention must not wander at will, but must be as far as possible confined to one idea or set of ideas. Thus, he may be made to think of sleep, with its associated notions of heaviness of the limbs, drowsy

feelings, and gradual sealing of the various channels of sense.

2. Sometimes a subject may become hypnotized in a few moments; if not, the second condition, that of *monotony*, must be remembered. The process, whatever it is, must be monotonous. Sidis monotonously strokes the subject's forehead, repeating, "Sleep, sleep, sleep," in a level tone of voice, until the patient is subdued to the hypnotic state.

3. I need not emphasize the evident necessity of the *absence of voluntary muscular movements.* A conscious slackening of all the muscles is desirable in the subject, as it seems to be paralleled by a helpful degree of psychical relaxation.

5. The last condition, *inhibition*, or the prevention of the intrusion of foreign ideas, is, of course, essential to the limitation of consciousness. In most of those cases that entirely defy hypnosis the absence of this inhibition is by far the commonest cause of failure. It seems certain that these conditions do conduce to some measure of suspension of the powers of the waking consciousness; in other words, to the induction of hypnosis, whether of the lightest or the most profound kind. I do not for one moment wish the reader to suppose that the value of the statement of these conditions is necessarily more than empirical; they seem, however, to indicate the factors which are common to all the known methods, though we really do not know in what their virtue resides. Perhaps it is not too much to hope that some more certain

process of hypnotic induction may one day be discovered. Possibly some drug may be found to induce the requisite mental change. Many have already been tried, and with occasional success, but the drug or method which will invariably succeed still remains unknown. Meanwhile we shall see that in all the various methods used at the present time these conditions do really seem to play a part.

IV. Processes of Inducing Hypnosis.

1. *Physical Methods.*—The actual processes generally recognized—the classical methods, we may term them—are mainly two: prolonged gazing by the subject at some small object (Braid's method), and the use of passes, or long, slow movements of the operator's hands near to, or in actual contact with, the body of the subject. But the more one sees of hypnotism, the more one is convinced that the real value of these processes consists in the evocation of Sidis's conditions—viz., fixation of the attention, and limitation of consciousness, and to the suggestion which they convey, often vague indeed, but still a suggestion, that the patient in some sense or other is being subdued to the influence of the operator.

But many other apparently trifling matters may originate this notion quite strongly. Thus, if the patient be told to lie down and to make his mind as blank as possible, or to sit down and try to think of nothing and to slacken all his muscles, or if he be merely asked to lie down, shut his eyes, and keep

them shut, each and all of these apparently quite insignificant actions ought, I am convinced, to be regarded as real hypnotic processes, which are often quite as effectual as the better recognized methods of gazing and passes. The essential point of value in each case is the quickening of the patient's knowledge that an attempt is being made, or is about to be made, to influence him, and it is this knowledge which gives to the simplest procedures their great significance.

While I am not prepared to deny that prolonged gazing at some small object and the use of passes may have some other intrinsic power to produce the hypnotic state, I am sure that their power of doing so has been greatly exaggerated, though to the unpractised hypnotist they do, I believe, have some value, for they tend to impart to the operator a certain confidence, and a suggestion given with confidence, which it is difficult to simulate, is in itself a very real power. As means of emphasizing a suggestion, both passes and gazing are undoubtedly useful. The steady, concentrated gaze of the operator can also impress a subject to an extraordinary extent. Even without any other preliminary process, a determined gaze often compels obedience to a suggestion. When at Cambridge, I frequently used this method when I was collecting subjects for the purpose of experiment. On more than one occasion I tried standing before a number of undergraduates and simply asking them to look at my eyes. Then I gazed steadily at whom I considered the best subject,

suggesting that he must get up from his chair and come to me. In a minute or so, notwithstanding his resistance, he had to obey. Then, by a similar treatment of the others present, I on one occasion compelled no fewer than eleven out of thirteen to obey the suggestion and approach me. None of these had been hypnotized before.

I mention this experiment to show that merely witnessing the hypnotization of others does of itself increase the suggestibility of a prospective subject, and must be included under the general definition as a hypnotic process, since it is, I believe, the most powerful and unfailing method of breaking down the resistance of a subject. It was on this principle that Wetterstrand relied in hypnotizing his patients, and to it his astonishing percentage of successes must be regarded as mainly due. His fresh patients were present while his old were hypnotized, and the impression made was overpowering, so that he practically never failed to affect them at the first trial.

But for practical purposes, when we have to hypnotize subjects singly, and not in groups, as Wetterstrand did, the one essential factor in rendering the subject suggestible is suggestion itself. The beginner must clearly grasp one point—*viz.*, that without an accompanying command or persuasion, either verbally given or tacitly understood by the patient, no process of any kind is likely to be of the slightest avail in producing the desired hypnotic state.

Almost all the older investigators, and many of the

modern ones, have apparently resorted in the first instance to physical devices. Mesmer invented and used a number, all equally successful, because, of course, behind them all lay the great, and then unknown, power of suggestion. Braid, when he first began to hypnotize, used to make patients gaze for a long time at some small bright object, held slightly above the eyes, about a foot distant, at the same time telling them to look steadily at it, and to concentrate their attention on it. Sometimes the eyes after a time would close spontaneously; if not, he repeated the process, instructing the patient to allow his eyes to close when the operator brought his two extended fingers towards them, and, after his lids were shut, still to direct his eyeballs towards the object, trying to picture it, and keeping his attention riveted on it. Usually this process succeeded; and it is worth noting that it is as a rule harder for a patient to open his eyes when the eyeballs are kept in such a position. Later, however, Braid recognized that verbal suggestion was the best method of inducing hypnosis, and stated his belief that anyone who could be hypnotized at all could be hypnotized by its means without any recourse to physical methods. With regard to this prolonged gazing, as originally advocated by Braid, it is interesting to note that sometimes, even in children who cannot by any possibility know what is expected, it may produce deep hypnosis, without any suggestion of any kind. It is just possible that the feeling of heaviness produced by the process may of

itself suggest sleep, and, of course, the monotony and fixation of attention may be expected to induce some degree of hypnosis. But I do not think this method is suited for purposes of medical treatment. It is tedious and exhausting to the patient, and, as it absorbs more time than more direct methods, it has nothing to recommend it in preference to them.

Among the public hypnotists who perform on the stage a modification of Braid's method is often used. Madam Card, who was, I think, one of the most successful, used to seat her subjects on the stage, placing in the hand of each a metal disc, at which he was directed to gaze. After about ten minutes, which she occupied by talking to the audience, she went to each in turn, and, taking away his disc, told him to look at her eyes. She stared at him fixedly for half a minute or so, at the same time stroking his forehead and brows with rather rapid strokes, and then bade him close his eyes. Finally, placing her hand on his forehead, and pressing strongly against it, she said: "Your eyes are fast; you cannot open them—it is impossible." If she achieved her end with the first two or three, she was generally successful with most of the others. If she failed with the first few, the failure generally acted as a strong counter-suggestion, and she would then frequently fail with all the rest. Her power undoubtedly lay in the extraordinary intensity of expression which she could throw into her gaze. She literally glared her subjects into submission.

2. *Method of the Nancy School.*—But for practical purposes there is absolutely no necessity to resort to physical methods at all. With limitation of consciousness, suggestion alone, either rapidly or gradually enforced, is the real power which induces hypnosis. Such devices, for instance, as the use of a revolving mirror for the patient to gaze at, as advocated by Luys, will, I believe, hypnotize no one who cannot be hypnotized by mere suggestion. However, one physical device at least may accelerate the process. Many persons are more readily hypnotized if they are made to extend the head backwards as far as possible while hypnotization is carried out. The reason seems to be that in this position mental activity is more difficult. I remember one travelling hypnotist who used to take advantage of this. He hypnotized his subject by standing behind the chair on which he was seated, and then, forcibly bending his head backwards, gazed into his eyes for a few moments, closed them, and suggested that they could not be opened. He was very effective, and I have often succeeded with the same method.

It is to the Nancy School that we are indebted for the modes of inducing hypnosis by pure suggestion, and the methods of Liébeault, Bernheim, and Beaunis, three of its chief leaders, resemble each other very closely.

Liébeault and Bernheim used to place the patient in a chair, and then tell him to look steadily at the operator's eyes. Sometimes the eyes would close

spontaneously; but if not, suggestions were made at once. The suggestions of both the operators were very similar. "Your eyelids are getting heavy; your eyes feel tired; your limbs feel heavy and numb; you are getting drowsy. Think of nothing but sleep. Your eyes are closing," etc. In most cases this succeeded immediately.

Beaunis used simply to make the patient gaze steadily at his eyes, and the lids would close in a few moments in successful cases. He gave no verbal suggestion; but it must be remembered that the inhabitants of Nancy were so familiar with hypnotism and its general results that the patient shared in the common knowledge of the kind of effect which was intended, so that the suggestion that the eyes should close was already in his mind before any attempt at hypnosis was made.

At Nancy everyone had heard of hypnotism and was more or less intimate with it, while immense numbers had been hypnotized, thus creating an attitude of mind which greatly favours the induction of the trance. It is not so in England. Here the majority have heard of hypnotism only as something mysterious and uncanny, or know nothing at all about it, except probably its name; thus we lack the potent auxiliary which exists in France. Ignorance is certainly a real hindrance. The idea is strange, and the strangeness distracts the patient; he wonders what will happen, and sometimes cannot refrain from an attempt to analyze his own feelings, a great and often fatal bar

to hypnosis. Hence in this country we must take this bewilderment into account, and, if possible, try to familiarize patients with the characteristics of the hypnotic state before we make any effort to influence them.

3. *Personal Method.*—While I cannot pretend to give the best methods of hypnotizing—for at present it seems doubtful if there is any method which can be called the best for all cases—it is worth while considering what, in a general way, it is advisable to do when a patient is to be hypnotized for the first time.

If, as generally happens, he is quite unfamiliar with the nature of hypnotism, the wisest plan at the first interview is, as a rule, not to try to hypnotize him, but to prepare him for being hypnotized when he comes again.

Complete ignorance, I repeat, is frequently a real obstacle to success, for the patient often finds it impossible to keep sufficient control over his mind during what is to him a strange process. I generally explain that the experience is neither dangerous nor alarming, that I do not really hypnotize him, but that he actually throws himself into the hypnotic state, and that I merely direct him how to do it.

I then describe what I shall do—that I shall get him to lie down and remain perfectly passive, endeavouring neither to aid nor to resist hypnosis. If I have decided to make heaviness of the eyes my first suggestion, as I usually do, I explain that

I shall then ask him to relax all his muscles, and to look at two of my fingers held in front of his eyes; that in all probability his lids will soon become very heavy, and will very likely close after a short time, and that, when they begin to seem drowsy, he is not to make any effort to keep them open, but may allow them to close. This, I tell him, is what I propose to do when he comes next time. Not infrequently I now tell him that I shall just show him what the process is like, so that he may be quite prepared for what is to happen then. I ask him to lie down and look at my fingers for a few moments, and say: "I shall only make you do this, and your eyes will very likely soon become heavy, as they would now if you went on looking." It often happens that even this produces at once an obvious difficulty in keeping the lids apart. If this is the case, I then go on: "You see what I mean, don't you? Your eyes are getting heavy even now, and they are closing of themselves." If they are sealed, the statement that he cannot open them is added, and so the first suggestion is made and carried out.

If, however, there be no immediate signs of heaviness of the eyes, or if he betray nervousness, I merely tell him that that is all I intend to do next time, and that, as he now knows exactly what will happen, he will then feel no tremor or excitement whatever; but I make no further suggestions at this first trial that his eyes are actually closing, etc.

It is, I think, as well to explain to the patient as

clearly as one can what hypnotism is; but one can give no general rule as to exactly what to inform him. If he be an educated man, I generally try to give him some comprehension of his sub-consciousness, telling him that by hypnotism we can appeal to that, and not to his waking self at all. I explain to every patient that the essential thing is the restriction of wandering thoughts, and that to insure this he must fix attention on some one idea or set of ideas. Often the idea of sleep and its onset will do, but many subjects cannot concentrate on that conception. I often find that the idea of the home, with the various rooms through which the subject can pass in imagination, is a good theme. In one case the patient could concentrate his mind on nothing but a game of golf; in another, only on the image of a fire glowing on the hearth. In some cases the patient is unable to concentrate at all, and these are, in consequence, often inaccessible to influence. It is amazing what an immense difference concentration makes. One case which I failed to affect on twenty-two different trials, because he could not fix his attention, was readily influenced when at last I proposed he should try to centre his mind on his own home. He could do that, though on previous occasions he had failed altogether to limit his thought to the idea of sleep.

On the second day I generally repeat the same process as on the first, and as a rule the eyes close, or at any rate show signs of heaviness. Usually,

after the patient has fixed his gaze on my fingers or on some small bright object for a few seconds, I make him fasten his eyes on mine for a short time, repeating again the suggestions as to heaviness, etc. It is quite astonishing how suddenly the steady gaze of the operator will influence a subject. In many it causes an almost immediate closure of the eyes. Now, however, if the eyes show no signs of closing or of heaviness, I think it best to follow Sidis's plan, and tell the subject to close his eyes and confine his mind as far as possible to one set of ideas. I then keep on repeating the suggestion, "Sleep, sleep, sleep," at the same time monotonously stroking his forehead. After a few minutes I generally raise one hand, and very gently let it go again. Often it stays where I have placed it, showing some degree of catalepsy. Even if it does not, I suggest that the patient will find difficulty in opening his eyes, that the limbs are getting heavy, etc. I then inform him that when I tell him to open his eyes he will probably be able to do so, but with more than normal difficulty. When he is told to try, the prediction is nearly always fulfilled. He may be quite unable to open them at all, or only after hesitation. If he remains unaffected, I generally make him shut them again, and resume for a short time, suggesting sleep as before, but I make no more trials on that occasion.

In the case of failure, it is advisable to elicit all one can from the patient, with the view of discovering the cause. This almost invariably proves to be lack of

the power of concentration. In that case, when he next comes, I try to find something on which he thinks he will be able to fix his attention, and, going through the same kind of process, often succeed. But there is one factor, self-suggestion, which sometimes prevents hypnosis, and I know of no method which will with any certainty overcome this obstacle. These self-suggesting people furnish most of the really unhypnotizable cases. One can only try again on another occasion, and keep on repeating the attempt until one either succeeds or concludes that further efforts are useless.

It is always advisable to get the patient to think of hypnosis as a gradual process, sometimes satisfactorily induced only after several sittings. And in general, with such subjects as require therapeutic treatment, it does take several trials to arrive at much effect. But in the vast majority, even of those who at first show no sign of hypnosis, repeated trials do succeed, especially if one can rectify mistakes in the conditions, such as failure of concentration.

It is worth mentioning that, when an attempt is made to prevent a subject from opening his eyes, firm pressure on the forehead seems to intensify the suggestion considerably.

4. *Necessity of Test Suggestion.*—It is, of course, not necessary to test the actuality of hypnosis by the suggestion of closure of the eyes. Many make no tests, relying simply on the account of the experience given by the patient when he is aroused, such as the

presence or absence of heaviness or somnolence, and the feeling of disinclination to move, etc. Personally, I generally do aim at this one test, as I then feel really satisfied that the subject is hypnotized to some degree, even if it be only very slightly; but others try to produce a feeling of warmth by laying the hand on the patient's body and suggesting the sensation of a warm glow beneath it. I do not think it much matters what test is applied, so long as it is a criterion that will show the existence of quite light degrees of hypnosis, and does not exact an advanced stage for its success. Testing the presence of hypnosis by an experimental suggestion has one other advantage besides the reassurance of the operator. If effectual, the suggestion will deepen the hypnosis, and on this ground also it seems to me advisable.

5. *Method of Dr. Betts Taplin.*—Some prefer slower methods as being the most certain. Thus Dr. Betts Taplin, of Liverpool, who, I believe, rarely fails to hypnotize his patients, does so by very gradual methods. On the first day he simply talks to his patient, explaining the nature of the treatment. On the next he sometimes merely makes the patient lie down, and suggests a feeling of rest and quietude. On the next he suggests the sensation of warmth in some part of the body, usually the epigastrium, on which he lays his hand, then heaviness of the eyes, limbs, etc., so that it is only after several sittings that any attempt at closing the eyes can be made. Though very lengthy, this method has the advantage of being

more certain than many others, and in his hands it has proved an exceedingly sure one.

But the beginner, if he will but remember that the chief condition found requisite for the production of hypnosis is limitation of consciousness, and will bear in mind the suggestions which are most readily enforced, must find that the process of induction of hypnosis is far easier than appears at first sight. If he be good at giving really strong suggestions, he will probably generally use the shorter processes; if not, he will find that he succeeds best with the more gradual methods. Once hypnosis has been induced, it can be deepened in susceptible subjects either by the reiterated command to sleep or by the suggestion of the various phenomena of the different states described in the chapter on the stages of hypnosis. It happens not unfrequently that the simple methods above described will of themselves induce deep hypnosis, or even somnambulism, at the first trial, without any further procedure.

6. *Allied Methods of Treatment.*—Other methods of suggestion, without hypnosis, are employed by many, and their advocates claim that the results are as successful as, or evenbetter than, those obtained by hypnotism.

(*a*) *Dubois' Method.*—The method of Dubois deserves more notice than can be given it here. It is applicable to many kinds of neuroses. He does not hypnotize his patients, but, after a searching diagnosis of the psychical as well as the physical conditions of the

case, he tries by reasoning and argument to convince them that they are curable and must get well, and to induce them constantly to reassure themselves that their symptoms will vanish. He helps them by encouraging suggestions every time he sees them. To me his treatment appears to rely mainly on suggestions of cure made by the patient to himself, and the results, which are exceedingly good, seem to flow from this induced habit of therapeutical self-suggestion. But the method is inapplicable to some cases, and must require singular powers of persuasion in the physician. Dubois objects to hypnotism, and even falls foul of the term "suggestion"; his method, he says, acts by persuasion. Still, his work is of great value in helping to emphasize the necessity of comprehending the psychical aspect both of nervous maladies and of their cure.

(*b*) *Dr. Bramwell's Method.*—Another method, employed by Dr. Bramwell—one which he now uses to the exclusion of hypnotism—demands some consideration. The patient sits down, and is told to think of some restful mental picture. The nature of the picture is unimportant, provided it be one which can hold his interest. He is instructed not to observe the suggestion given by the physician, and upon his power of inattention the success of the procedure is said to depend. Two kinds of suggestion are then made. The first refers to the conditions which the operator wishes to create while the patient is in the arm-chair. He is told that each time he comes he will find it

easier to rest, to turn his attention away from the operator, and to concentrate it upon some restful idea. It has been previously explained to him that the physician's aim is not to produce sleep, but that if he can get into the drowsy condition that precedes sleep, the curative suggestions are likely to find response more quickly.

The other suggestions are curative, and begin with the first treatment. Often the patient is unable on the first occasion to divert his attention from these, but after a few treatments he is generally able to do so, and to form some serene imaginary picture, often passing into a dreamy, drowsy state. Sometimes he lapses into a condition of slight natural sleep. It is difficult to explain the success of this method in the absence of experiments to show how it acts. Bramwell says: "The suggestions given are supposed to reach the secondary consciousness and to call its powers into play"—evidently because the primary consciousness, tricked into preoccupation, leaves the secondary more easily accessible. Probably this is so, since such suggestions have practically no power over the primary consciousness. It is clear that the method is a process in which limitation of consciousness and monotony have a part, so that we may reasonably suppose that some amount of hypnosis may often occur. But why the suggestions should answer better when the subject does not consciously attend to them than if he does is a very difficult problem. As Sidis has, I think, satisfactorily proved, in the normal con-

dition only indirect suggestions have appreciable effect, and even then the effect is but slight, whilst in hypnosis the more direct the suggestion the more powerful it is in producing results. I have very little experience of the method myself. In the cases where I have succeeded with it I found afterwards that the patients were partially hypnotized and had heard the suggestion consciously, though in one case memory of what had passed was somewhat blurred. In one successful case of mine the result was certainly due to self-suggestion, for I had merely repeated "The Walrus and the Carpenter" in a low tone.

But it is to be hoped that the explanation of such an important method may in the near future be determined by experiment.

It is unnecessary to point out the great advantage of a really successful method of enforcing suggestions without the aid of hypnosis, both as regards economy of time and also as regards the number of cases which could be treated by its means; for it would then make no difference in suggestive treatment whether the patient were hypnotizable or not, since, after all, the only object of inducing hypnosis is to render the subject more suggestible.

But it seems possible that both methods have their value, and that some cases can be more successfully treated by one than the other. I have seen, for instance, a bad case of dipsomania, which had been treated without the slightest result for some weeks in a nursing home by suggestion without hypnosis, yield

at once to suggestion under light hypnosis; and yet I know that the medical man who treated the patient in the first instance has succeeded in many similar cases by his method.

I do not advise anyone to restrict himself to one method, though at first it is doubtless best to practise with one until it becomes familiar. Eventually he will be able to judge for himself which methods suit him best in general, for there can be little doubt that each worker will discover some one mode of procedure peculiarly suited to his individuality.

Note on the Awakening of the Subject.

To arouse a subject from the hypnotic sleep the command to "wake" is all that is necessary. It is, however, best to arouse him gradually. I generally suggest that he will wake when I have counted ten, and then count slowly aloud.

In only two instances have I known of difficulty in ending the sleep. In both cases the subject had been hypnotized by two different men at a few minutes' interval, and could be awakened by neither. One was finally aroused by having cold water dashed in his face; and the other, who had passed into the imitative stage, was eventually wakened by an ingenious ruse. When I pass over one of my patients to anyone else for treatment, I always suggest in hypnosis that he will obey his new hypnotizer, and wake at his command. This precaution had been omitted in the two instances mentioned.

CHAPTER IV

THE PHENOMENA OF HYPNOSIS—THE STAGES

Introductory statement—Erroneous impressions of hypnosis—Determination of stages of hypnosis—Detailed account of stages 1 to 5—Comparison with stages of Liébeault and Bernheim.

General Statement.

If a number of subjects are hypnotized, the suggestions to which they respond are not the same in every case. Thus, in some, closure of the eyes is the only phenomenon that can be evoked. In others we may produce, in addition, inability to carry out a voluntary movement, such as writing or walking, though we cannot compel them to initiate such a voluntary movement. Others, again, will show the phenomena above mentioned, and will also yield obedience to some imperative suggestion—for instance, a command to rise from a seat—though memory cannot be inhibited, even for single facts.

If we group the sets of phenomena as A, B, C, etc., and take a large number of subjects, we shall find that some are capable of showing the phenomena of group A only; others, again, of group B as well

as of group A; others, again, of groups A, B, and C; and others of groups A, B, C, and D (D representing groups still more advanced).

We may therefore experimentally divide the hypnotic condition into stages, each stage being characterized by its particular group of phenomena. Since, however, it is possible to produce in every stage some at least of the phenomena of all the stages preceding it, we can tell the actual stage of hypnosis which any subject may happen to reach only by ascertaining what are the most advanced phenomena that can be elicited; then, by referring to the group to which they belong, we readily determine the stage of hypnosis which the subject has attained. The different groups of phenomena that become manifest as the subject advances from the lightest to the deepest states of hypnosis can, of course, be determined only by actual experiment with a large number of subjects.

Anyone who intends to make use of hypnotism for therapeutic purposes will, naturally, be better equipped if he has some knowledge of the general course of the phenomena which may be evoked by its means—if he realizes what, in fact, are the stages through which the subject will pass as he goes, by almost imperceptible degrees in many instances, from the lightest possible condition of slightly increased suggestibility to the state of profound somnambulism.

It might be supposed from the name "hypnotism" that the commonest characteristic of the hypnotic

state was the hypnotic sleep. As a matter of fact, comparatively few subjects reach this particular condition; nor, fortunately, is it necessary for therapeutical purposes, except in a very small number of cases. It is generally held that only about 15 per cent. ever pass into the deep state at all. The great majority, therefore, show only the characteristics of the light or waking state, in which there is no break in the continuity of the memory of the subject. There is another general, but quite erroneous, impression that the hypnotic sleep is a condition of unconsciousness. The subject, even in somnambulism, remains completely conscious, though on awaking he forgets all the experiences of his "sleep." Probably this loss of memory has become confused with the idea of loss of consciousness. Some rare patients do occasionally pass into a condition of lethargy resembling a very heavy normal sleep; but even these subjects, though too inert to respond to spoken suggestions, are probably more or less conscious—certainly not less conscious than in deep natural sleep.

The stages here described were those defined by Professor Langley and myself when experimenting many years ago at Cambridge. These early stages have long become familiar in public exhibitions of hypnotism. Some were mentioned by Braid, and an account of certain of their phenomena, as produced by Lewis and Darling in 1851, is given by Bennett and by Gregory.

The first object of our experiments was to ascertain whether the different stages of the waking state could be arranged in sequence, so that a subject showing the phenomena of any stage (whether earlier or later) in the succession could also be made to show the phenomena of all the stages preceding it.

The subjects were all men, nearly all were undergraduates, and all were in good health. Besides dealing with the subjects on whom Langley and I worked together, I experimented by myself on a large number, and the results, as regards the stages, I found to be always, or very nearly always, the same.

The method of inducing hypnosis which we adopted was very simple. We gazed at the subject from thirty to sixty seconds, generally stroking his temples and forehead at the same time, and making strokes or passes over the top of his head. He was then asked to shut his eyes, over which a few more passes or strokes were generally made; one hand was then laid firmly on his forehead, and the suggestion was given: "You cannot open your eyes." If this succeeded—and it did succeed in the majority of cases—we went on to try other inhibitory suggestions. Thus, in their order, we induced rigidity of the limbs, obedience to imperative suggestions, loss of memory for particular facts, simple delusions, and loss of sensation. After this we attempted to produce illusions. If these were evoked, the subject would usually pass into the deep state. If not, we tried the suggestion, "Sleep."

We found the subjects hypnotized by this method

showed no alteration from their normal appearance in the first three, and often in the first four stages, therein differing from the subjects of Liébeault and Bernheim, who proceeded on a different plan, obtaining by gazing, passes, and the suggestion of sleep, the maximum degree of hypnotization possible. Thus, even their first stage is marked by more or less drowsiness, owing possibly to the reiterated suggestion of sleep, which we never used until we wished to produce the deep state.

With regard to the stages as we differentiated them, two points are to be noted:

1. The stages are not sharply marked off from each other. They are due to a loss of voluntary control over some of the muscular movements of the body, others remaining under that control. But the loss of power has many degrees. It may show itself in a mere slight hesitation in performing the movement affected by the inhibitory suggestion; or it may, indeed, be utterly impossible for the subject to perform the movement so long as the suggestion is maintained.

It must be understood that the relations of the stages 1, 2, 3, etc., to each other are such that a certain number of subjects show the phenomena of stage 1 only. Others show the phenomena of stages 1 and 2 only; and when the phenomena of stage 2 or stage 3 can be produced, then those of stage 1 or stages 1 and 2 respectively can also be made apparent.

In most cases, when stage 3 can be produced, then the phenomena of stage 2 appear more readily, and

those of stage 1 still more so. Some subjects, however, are so susceptible that it is difficult to discriminate degrees in the ease with which the phenomena of the different stages are evoked, and in some it is easier to produce somnambulism than the phenomena of the waking state without it.

2. If a subject is taken beyond the early stages of hypnotism, so that when at rest his condition is obviously abnormal, and suggestions are then made to him, he cannot afterwards be experimented upon to determine these early stages unless the suggestions given in the deep state have been most carefully noted. For after a suggestion has been successfully made in the deep state, the subject's condition is so altered that the same suggestion given in his waking state is more readily carried out than it was before. The fact makes such experiments difficult unless one can obtain a great range of subjects.

It cannot be claimed that the stages are always exactly the same in all subjects, yet variations are neither remarkable nor frequent. The phenomena depend upon the receptivity of the nervous system, and, since this may be altered in deep hypnosis, we may naturally expect some differences to exist even in healthy persons, and still more in unhealthy persons, especially in those suffering from a perversion of some one or other function of the nervous system. None of our experiments was made upon hysterical subjects, but the different accounts given of the early stages in hysterical patients do not seem surprising;

indeed, their close conformity with those found in healthy people would be much more a matter for wonder.

The stages observed are as follows:

Stage 1.—In this stage the subject can be prevented from carrying out those voluntary movements which are most commonly accomplished in ordinary life by reflex action; such are those affecting the muscles of the eyes, face, and respiration. The typical movement is that of opening the eyes, and this, of all movements, appears the easiest to prevent. This inhibition has long been the first experiment tried by public performers on the stage, and Liébeault and Bernheim also mention it as one of the easiest phenomena to obtain. Other phenomena belonging to this class are the preventions of shutting the eyes, opening the mouth, swallowing, taking a deep breath, breathing.

Both in this stage and in stage 2 the more commonly the movement is carried out by reflex action and the less commonly by volition, the easier it is to inhibit it by suggestion. It is worth noting in this connection that one act, at any rate—viz., sneezing, which is practically an entirely reflex act—can be prevented in almost anyone, even in the normal states, by a direct inhibitory suggestion. This is also not infrequently the case with regard to micturition, which, however, can generally be prevented only after the first stage has been produced.

According to Heidenhain, in a considerable number

of subjects the only sign of hypnosis that can be obtained is inability to open the eyes, and this accords with my own experience. Of these, he says, some can be prevented from opening the mouth as well. In some, other muscles can be affected—*e.g.*, after a few strokes over a strongly flexed arm the subject may be unable to extend it. He compares this with a condition described by Richet, where a voluntary contraction causes a contracture. Whether he thinks the inability to open the eyes and mouth is caused in this way is not clear. In fact, however, the first obvious sign of hypnosis is the inability of the subject to open his eyes *when told he cannot do so*. This feature may be strongly marked, although it may be quite impossible to produce any contracture in the rest of the muscles. So far as we have observed, a stray voluntary contraction may sometimes aid the effect of suggestion, but does not of itself produce any contracture. I am not here speaking of subjects who have been deeply hypnotized or who are hysterical.

It is important to recognize that hesitation in opening the eyes is as true a sign of commencing hypnosis as the most absolute inability to open the eyes at all. Of course, the subject is more deeply hypnotized in the latter case, but he is as truly influenced in the former; and it will almost always be found that, by repeating the process, the slight hesitation may be converted, though often only gradually converted, into an absolute disability. It is worth while to draw

attention to this point, for by many not familiar with hypnotism a suggestion imperfectly carried out is regarded as a failure, although it unmistakably indicates a certain degree, at any rate, of hypnosis.

Stage 2.—In this stage we find three different classes of phenomena. All subjects in this stage show the phenomena of the first stage, combined with one or more of the phenomena of the second:

(*a*) The limbs can be made rigid.

(*b*) After suggestion, the subject is unable to control the movement of his limbs—that is, he can be prevented from voluntarily carrying out movements not included in stage 1.

(*a*) *Rigidity.*—To produce rigidity, light strokes or passes are made over the limbs of the subject, and he is told his limbs are becoming stiff. This appears to happen most easily with the hand, then with the arms, then with the legs. We rarely tried to influence the body muscles. In almost all these cases passes aid the effect of verbal suggestion. In some, pointing with the finger seems equally efficacious, and simple suggestion really does as well. The rigidity produced varies greatly in intensity in different subjects. It may be so slight that the subject only just appreciates it, or so extreme as to be somewhat painful, and leave a feeling of fatigue. In general, the more extreme the rigidity, the longer it takes for the subject to relax the muscles after the suggestion has ceased. In some subjects when, say, the hand has been made rigid, it can be flexed almost instantly

when an attempt is made to do so. In others the rigidity produced cannot voluntarily be ended within a minute or more. It may require a considerable external force to move the limb, which, when released, flies back to its original position. It must be understood that in these cases no suggestion has been given to the subject that he cannot move a limb. He is simply asked whether he can bend it—his hand, for instance. It is well known the time taken to perform such a movement is decreased by suggestions like "Now you can close your hand." If this alone does not lead to flexion, a few passes over the hand in a direction contrary to those made in stiffening it are often effective. Occasionally the subject still cannot flex his hand. In that case flexion may be produced by the command of the operator to open the hand. When, however, the rigidity does not rapidly disappear, experiment shows that the subject can be made to show more or less markedly the phenomena of stage 3. In some cases we tried plunging the stiffened hand into hot water, which caused the rigor to vanish instantly. Cold water seemed to produce the same effect as hot, but more slowly.

One subject—C.—who was able by self-suggestion to produce great rigidity in any limb, was also able, by thinking of his arm as being relaxed, to prevent to a great extent the production of rigidity by us. All that we could do by suggestion and by passes was to produce a stiffness insufficient to cause any ap-

preciable delay in the voluntary movement. The subject, whose hand was relaxed by hot water, eventually succeeded in making his hand rigid by self-suggestion. He found that he could bend it more quickly when he held it near the fire. Having repeated the experiment several times, he placed his hand on his leg, and then found that as long as he kept his hand in that position he was unable to stiffen it. We also were unable to make his hand rigid, either by suggestion or passes, as long as he kept it in contact with his leg, whereas, if it were removed an inch or so, we could do so instantly. This is interesting, as showing the way in which a suggestion may work. Before he had experienced the rapid reduction effect of hot water, we could make his hand rigid, whether he kept warm or not; but afterwards warmth gave rise to the suggestion of laxness in the muscles to such a degree that neither spoken nor other suggestions of rigidity produced any effect. In most subjects the placing of the hand in hot water rendered it somewhat less easy to reproduce rigidity, but the difference was often very slight. The following case, belonging to a stage later than that here dealt with, shows how hot water may annul the effect produced by passes :

A.'s hands became insensitive under strokes or passes, the loss of sensation beginning at the tips of the fingers, and spreading upwards. He was asked, without being told why, to dip his fingers to about the first joint in hot water. After drying them, he

was asked to put his hand through a hole in a screen, so that he could not see his hand or what was done to it. Passes were made over this hand, and it was found that the ends of the fingers retained their sensitiveness, whereas in the rest of the fingers sensation for all except very strong stimuli disappeared.

Squeezing the muscles in some cases markedly increased the strength of contracture. Thus in J., in whom contracture from light stimuli and suggestion is only slight, a strong contracture is produced by squeezing the muscles. With C., in whom contracture is readily obtained by light stimuli, squeezing the muscles produces much greater rigidity, which it takes much longer to remove. Probably the strong stimuli act by increasing the force of the suggestion. It is a question whether contracture of the muscles cannot be produced with an ease which varies inversely with the frequency with which in ordinary life they are used reflexly—that is, without effort of will. Thus, the muscles of the limbs are more easily made rigid than those of the face. When a subject whose hand was rigid tried to bend it, it always appeared, as far as our experience went, that the first and second fingers were the last to be completely flexed. Later experiments on these subjects showed that it took fewer passes to make these two fingers rigid than the third and fourth fingers or the thumb.

It seems clear that the primary change in the nervous system which produces contracture lies in

the cortex of the brain, for in nearly all fresh subjects passes do not produce contracture unless accompanied by verbal suggestion. The change is probably an active, and not an inhibitory process. It has been supposed by some that the condition is due to the inhibition of the cortex, the lower centres being so left freer to act; but if this be the case, how is contracture produced by simple suggestion to be explained? It can hardly be supposed that the ordinary stimuli from the skin and organs of the body are sufficient to produce strong rigidity of the muscles of the body, even supposing that the higher centres are not acting. This is not the case in paralysis from injury to the brain or in cases of injury to the spinal cord. Consequently the contracture is probably produced by an activity of certain parts of the cortex of the brain—that is, caused by the idea of contracture. This disturbance must be restored to quiescence before the contracture can disappear.

In certain prolonged experiments on the hands of subjects, partly through a screen, it has sometimes happened that the arms have become more rigid than the hands. Perhaps this was due partly to reverse strokes being made over the hand, and not over the arm. In other cases we found the arm more readily rendered rigid than the hand. Thus, light strokes from the shoulder downwards have made the arm quite rigid, and the hand only slightly so. These cases, however, are exceptions, and not the rule. It would be difficult to say whether this is due to a

difference of reaction in the various muscles, or simply to the concentration of the subject's attention upon one set of muscles more than the other.

(*b*) *Inhibition of Movements.*—The next phenomenon characteristic of the second stage is the inability of the subject to carry out movements when told he cannot. One of the easiest movements to prevent is (1) the dropping of an object held in the hand. This is subject to conditions to which I shall return a little later. The other inhibited movements we studied were (2) writing; (3) raising or lowering the arm, and moving the arms laterally when placed straight out in front with the palms together; (4) walking or lifting the leg; (5) rising from a chair or sitting down; (6) picking up an object. The time during which the subject is unable to perform these movements of course varies.

It is easy to prevent the dropping of even a light object held in the hand, if that object be held between the first finger and the thumb. If the thing be held simply by the fingers, without the aid of the thumb, it is extremely difficult to prevent a subject from dropping it, unless it is more or less heavy. A handkerchief, if so held, is dropped by the gradual opening of the hand; a book, which has more weight, cannot, as a rule, be dropped at all. The period of inhibition, as I said, varies in its duration. It lasts longer if the suggestion is continually repeated, and if the subject continues to look at the operator's eyes; and in many cases the forbidden actions cannot be

resumed at all unless the suggestion is explicitly removed.

In all these cases of inhibited movements at this early stage, it is not that the subject is unable to contract the muscles necessary to bring about the desired movement, but that he cannot help contracting the antagonistic muscles at the same time. Supposing he is told that he cannot bend his arm, then, when he tries to do so, he contracts the extensors, and the arm remains extended. The degree of contraction of the antagonistic muscles depends partly upon the strength of the suggestion, and partly upon the intensity of the effort with which the subject tries to overcome the inhibition of the suggestion, so that the greater the effort made by the subject, the stronger the contraction of the antagonistic muscles. The suggestion affects the part of the brain which directly or indirectly governs the antagonistic muscles, and every effort to stretch them is at once counteracted.

This seems to be shown by the following experiment: The subject is told he cannot bend his arm, and whilst he is told this someone tries to bend it for him; the extensors immediately contract. Obviously the contraction of the extensors is a reflex from the cortex, brought about by the stimuli set up in attempting to stretch them. The case, no doubt, is the same when he voluntarily contracts his flexors; that is, the effort of will does not act directly on the cortical centre which governs the antagonistic muscles, but only indirectly by stretching these muscles. The same

suggestion may act differently in different people. When E. holds a light object in his hand, and is told he cannot drop it, the whole hand grips the object firmly, then slowly relaxes the grip, and so on. J., under similar circumstances, continually passes the object from finger to finger, holding it always between the thumb and one or other of his fingers. Often after the first movement or two all the fingers except one get free, but any movement of this from the object is accompanied by a movement of one of the other fingers to seize it. Thus, the fingers are kept dancing backwards and forwards towards the thumb, and the object is still held.

Again, if B. be told that he cannot lift his hand, laid flat on the table, there are movements of his arm, but his hand does not rise; whilst J., under the same suggestion, lifts one part of the hand after the other from the table until he touches it by the tip of one finger or the thumb; but as soon as this is raised another finger darts down, and so keeps up a kind of tattoo.

F., when told he could not write his name, tried at first to do so by moving his fingers, but could make nothing but scratches; it then occurred to him that by using his whole arm he might be able to write. He managed to write the first half of his name in this way, but when he was told that he could not write at all, this movement was rendered ineffective, and resulted only in more scratches.

I here give two more examples of the way in which

a suggestion may work itself out. J. was told that he could not take a step forward. He raised one leg, and put his foot out in front laterally, but could not get it to the ground excepting alongside the other foot. After some trials it struck him that, if he could only lose his balance when one leg was raised with the foot in front, he must come down on it and make the step he was struggling for. So with one leg in the air he made sudden jerks with his body forward, and then presently did lose his balance. But immediately he did so he caught the mantelpiece, which was near him, so breaking the stumble; and he declared that he could not help thus saving himself.

The following example will show how a subject may devise a way of circumventing a suggestion. So many seem to have an idea that a suggestion given in hypnosis is always fulfilled with inexorable fatality, that it is well to bear in mind that this is by no means the case. J. F. was told that he could deal out only twelve cards from a pack—no more. He took the pack and dealt the cards out one by one, counting one, two, three, etc., as he did so. Having dealt the twelve cards, he took the thirteenth card in his hand, but was utterly unable to put it down on the table. After repeating the experiment of dealing cards several times, and being uniformly unsuccessful in dealing out more than twelve, he reflected that if, instead of dealing one card out a time, he took two, and still counted one, two, three, as he dealt each pair, he might be able to circumvent the suggestion.

He did so readily, dealing out twenty-four cards instead of twelve; but when he took the thirteenth pair and tried to deal that, saying "thirteen," he again found himself unable to put the cards down.

We did not find that the three kinds of phenomena —viz., contracture, inhibition of voluntary movements not included in stage 1, and the execution of movements by imperative suggestion—followed one another in any regular sequence; for, whilst all subjects capable of any of them show those of the first stage, some may show any one of the subdivisions of stage 2 without the others. This happens, however, only with the minority of subjects. Generally speaking, the phenomena can be produced in the following order:

(1) The subject can be prevented from dropping an object.

(2) His arms and hands can be made rigid.

(3) He can be prevented from writing.

(4) He can be made to carry out a movement (stage 3).

Further, as I have said before, all these phenomena are obtained in any subject who shows at all markedly the phenomena of the third stage.

It is to be noticed that, when passes are made before an inhibitory suggestion is given, the inability to make the movement may be due to the contracture produced by the passes, and not to the suggestion itself. In some cases the inhibitory suggestion may be effective when contracture has been produced

though it was ineffective before. Thus C., when told that he cannot bend his arm, does so without any hesitation; but if he is first told that his hand and arm are rigid, and then, when they have become rigid, that he cannot bend his arm, the time taken by him to bend it is very considerably prolonged.

In all subjects in whom rigidity is produced there is a marked tendency for a limb to stiffen as soon as attention is fixed on it; thus, if such a subject be asked to hold his arm out, and if he be told that after a little time he will be unable to lower it, it will become rigid even before he tries to move it.

There is one phenomenon—viz., the production of suggested automatic muscular movement—of which I may speak at this point. My attention was first called to it by the Hon. E. Feilding quite lately. I have tried to obtain these movements only with eight subjects. In one case I was unable to produce the effect with a subject whom I could compel to continue movements voluntarily begun. In four I succeeded when I could not compel the subjects to continue such movements. With the others both sets of phenomena could be induced. It appears on the whole to be a phenomenon which lies between the second and third stages, and is, I think, conveniently classed as belonging to the earliest part of the third stage.

So far I have tried the experiment only in one form. The subject, whose eyes are closed by suggestion, lays his right hand on mine. He is then asked

to remove his hand voluntarily from mine, and to replace it again every time I count three. I then begin counting, one, two, three, etc., and each time I say three he moves his hand an inch or two from mine and then replaces it. After this has been done three or four times, I ask him no longer to move his hand voluntarily, but to let it lie quite passively in mine, trying neither to move it nor to prevent it from moving. I then tell him that I shall endeavour to make it move automatically, and I begin counting again as before, one, two, three, etc., with rather a long pause at the three. If the hand does not soon begin to move of itself, a very little pressure, a mere gentle touch, is made each time at the side of his hand or wrist in the direction in which his hand is intended to move, and he is assured that the motion will come in time. After a few trials slight movements begin, and as the experiment goes on they become stronger, until at last, at each "three," the hand is automatically moved completely away from mine and back again.

As a rule, one can then go straight on, telling him to try to keep his hand quite still, since he must move it with or without his will. If the experiment is continued in the same way as before, his hand soon begins to move, notwithstanding his efforts to keep it stationary. Here, of course, is a response to an imperative suggestion, and the phenomenon, therefore, belongs to the third stage; but there can be no doubt that the previous training in making him move his

hand first voluntarily and then automatically, renders it much more easy to secure this response.

Stage 3.—The third stage of the waking state is often rather sharply marked from the first two by the possibility of enforcing imperative suggestions. One finds a very large number of subjects who are quite readily amenable to inhibitory suggestions, but on whom no imperative suggestions appear to have any effect whatever.

The inhibitory suggestion merely confirms the state of action or inaction during which it was made; the imperative has to change inaction to action or *vice versa*, and this, perhaps, is the cause of the greater difficulty which one finds in enforcing imperative commands.

To the third stage also belongs the class of suggestions which prevent a subject from stopping a movement voluntarily begun; and later in this stage loss of memory for particular facts can sometimes be induced, so that a subject may be made to forget his own name.

To compel a subject to execute a movement, the command must be repeated over and over again, often for a minute or two in difficult cases, before any perceptible effect is produced. It certainly often helps matters considerably if the subject continues to look at the operator's eyes while the suggestions are made. This, however, is not a necessary concomitant, as success can often be obtained while the eyes are closed. In imperative, as in inhibitory suggestions,

every grade of intensity of effect exists. In subjects who are only in the second stage no effect whatever is produced. In a slightly deeper condition the subject feels an inclination to perform the suggested act, but can resist without any appreciable effort. As the condition deepens, the effort required to resist the suggestion becomes greater and greater. Thus, if a subject be told to get up from his chair, he will, after a short time, actually hold his chair with both hands in order to prevent himself from getting up. Others cannot successfully resist at all, however great the effort they make, and some are quite incapable of even attempting to resist in the slightest degree.

As the suggestion is repeated, and the idea gains in strength, the aspect of the subject usually changes completely. At first he may wear an expression of amused indifference; but gradually his countenance becomes more serious, as he begins to feel that, after all, it is not so easy to resist, and at last his whole attitude becomes of striking, almost strenuously fixed, attention.

The following were the principal movements which were tried during the experiments at Cambridge. The subject was made—

(1) To laugh;
(2) To walk to the operator;
(3) To rise from his chair;
(4) To flex his arm;
(5) To close his eyes;
(6) To open his eyes.

At first in these cases all the muscles are quiescent, then the muscles antagonistic to the movement come into play, and finally the muscles required to bring it about.

The readiness with which a subject can be compelled to laugh varies very much in different cases, according to temperament. Some people never or scarcely ever laugh, and in these, naturally, laughter cannot be excited during hypnosis. In making the suggestion of laughter the operator may remain as grave as he pleases. When he succeeds, it is sometimes impossible for the subject to stop laughing until told to do so. In some the laughter ceases spontaneously soon after the suggestion is given, unless, of course, it is renewed.

Habits of life tell on other suggestions besides that of laughter. Thus, I have often suggested to a subject that he shall strike a false chord while playing the piano. This may succeed with anyone, but I have found it impossible in the case of two really musical subjects, though always easy in the case of those who could merely strum.

In the third stage we can also prevent a subject from stopping a movement voluntarily begun; this can often be done before he can be made to initiate a movement. The most usual movements thus continued were laughing, moving thumbs or hands round one another, repeating words or phrases, beating time with the hands or feet.

The subject is asked to make some continuous

movement, and, after half a minute or so, is told that he cannot stop. It is a remarkable fact that the suggestion "You must go on" is often quite ineffective when the suggestion "You cannot stop" acts quite readily. I have noted this very frequently, and I always consider that a subject who responds to "You must" is in a distinctly deeper condition than the one who merely responds to "You cannot."

I have never once failed with the negative form of the suggestion when the imperative has succeeded, though I have frequently failed with "You must" after success with "You cannot." It seems to be a law almost without exception that the inhibitory is more powerful than the imperative form of suggestion. Only fairly susceptible subjects pass into this stage without prolonged hypnotic processes.

Suggested loss of memory for particular facts is a phenomenon which is liable to a good deal of variation. In general it appears easier to induce than the phenomena of stage 4, but often it could be realized only in a later state of hypnosis.

The subject may try hard to remember, and fail; and not infrequently he may present the curious condition of being unable to try to remember at all.

Stage 4.—In this we can produce:

(1) Loss of sensation in the skin.

(2) Imperfect delusions.

These latter are most easily evoked in relation to touch and temperature; thus, a light body may seem heavy, or a cold body hot, and the subject may be

made to feel hot or cold. A paper-knife may become heavy enough to weigh the hand of the subject to the ground. Again, it may seem too hot to hold, and it is odd to see a subject fling it down, instantly regarding his hand, as though expecting to find the mark of burning. In the fifth stage we also get visual illusions, memory afterwards being sometimes imperfect.

So far there is no marked change in the appearance of the subject: the face shows neither drowsiness nor heaviness, and the only noticeable change is a certain intentness of attention towards the operator. and possibly dilation of the pupils. Still, until a suggestion has been made, it is impossible to say whether it will be successful or not. When the hypnotic processes are further prolonged, the appearance of the subject will often give an indication, though not an infallible one, of the suggestions that will be effective; thus there is:

(1) More or less drowsiness, which is accompanied by an almost complete absence of initiative, the subject remaining quiescent except when he means to obey a suggestion.

(2) A disinclination to make any voluntary effort.

(3) Disposition towards catalepsy.

It is not easy to divide the later states of hypnotism into stages. In all the different deeper states, except, perhaps, that of somnambulism (our final stage), some illusions can be induced easily, others only with difficulty; and we found, as, indeed, has been

almost universally noticed, that in different subjects there is great variation on awaking in the degree of memory of what had happened in the hypnotized state. In both of these matters, indeed, there is every possible variation.

After hypnotic passes have been continued for a varying time, illusions can be induced, and the subject may act in accordance with them. Sometimes one could tell from the appearance of the subject whether the attempt would be successful or not. We generally tried first to make the subject hear illusory bells, then to see an illusory light, and then to make a speech to an illusory audience. When these illusions were successful, all the phenomena of the previous states could be readily obtained. The subject was cataleptic, and kept his arms raised if they had been put in that position. If told to open his eyes, he still could not put his arms down. They remained fixed, the muscles being apparently in a state of contracture; if an object was swept over his eyes, they closed; if a light was brought near, the pupils contracted. When a suggestion requiring action is given, the catalepsy ceases at once, and the appearance of the subject becomes very nearly, if not quite, indistinguishable from normal. When the illusion is ended—and in some cases this can be done by simply closing the eyes—the cataleptic state returns. If the illusion be concluded by closing the eyes, the limbs often remain in the position of the moment. If it is ended by verbal suggestion, the muscles return to

their normal state. Taste can be dulled, but not abolished. The readiest class of illusions, after those mentioned above, are those connected with the touch —for instance, contact with flies, or fleas, or a snake— or with the sight of objects which lead to action or strong emotion, such as a snake on the ground.

When an illusive object is shown on a piece of paper, the subject sees it more quickly if the real object is first shown him. For instance, if he is told there is a drawing of a rabbit on a blank piece of paper, he will see it more readily if a drawing of a rabbit is first shown him and a copy of it is asserted to be on the blank paper. As an instance of the difference in the ease with which illusions can be induced, I may mention M. Being hypnotized, he was shown a blank card, and told that there was a drawing of a fly upon it; but, though the suggestion was repeated several times, he still replied that he did not see it. Then it was suggested: "The fly has escaped; it is buzzing about you; there are many flies round your head," when he began to brush them off his face, and strike at them in the air with great energy. So also a subject will more readily see an illusory picture of someone familiar than that of an unfamiliar object. His memory of the actions he has performed during the day seems more or less dulled, but reflection or slight suggestion soon recalls them. After any suggestion has taken effect, and he is asked what he is thinking of, he answers "Nothing." His state varies somewhat, so that at one time the same

suggestion may require more repetition and insistence to be effective than at another. Possibly this is due to some suggestions or acts partially waking him, or to a long pause between two suggestions, when he becomes a trifle more deeply hypnotized. If an action, such as swinging the arms, be begun for the subject, he will continue it himself.

All our subjects in this stage, on whom Langley and I experimented together, would take suggestions from either of us; often, however, subjects will take no suggestion in the deep state except from the hypnotizer, and I found this frequently to be the case in those subjects on whom I was experimenting myself when others tried to make suggestions. On awaking, the subject would remember more or less accurately all that had taken place.

The above stage is a distinct state of hypnosis in certain subjects. They can easily be sent into it, and they remain in it almost indefinitely.

L. passed into this state in from ten to twenty seconds. In his case the most effective means for its production was to close his eyes and press gently upon them. The readiness with which he accepted suggestions was increased by lightly stroking the top of his head. Thus, after making one or two experiments, he was shown a blank card, and told that it was a photograph of a friend in the room. Asked if he recognized it, he said "No"; and when again told that it was a photograph and that he must see it, he still answered "No." His eyes were closed, half a

dozen strokes were made backwards over the top of his head, and he was then told to open his eyes. He was then shown a card with a circle on it, and told, "Look at this photograph of F.; it is an excellent photograph." This was repeated several times, during which he looked in a rather puzzled way at the card. "Don't you think it good?" "No." "What is the matter with it?" "It is misty." "But it is something like him?" "Yes, it is something like him." When awakened and asked what he remembered, he said he had been shown a card with a circle on it, and told it was a photograph of F., but that he did not see any photograph. Here, then, the subject, although not seeing the object suggested, behaves and talks as if he did; and when asked why, says that he could not help himself. That he had not merely forgotten having seen it is shown by his ability to recall the conversation about it, and also by the fact that when passes were made for some time longer, and the experiment was tried again, he remembered when awake having been shown a blank card, and then later a photograph on it.

Stage 5.—When passes are continued longer, the senses become more dulled, and illusions are still more readily produced. Anæsthesia can be produced by suggestion.

The memory is very imperfect on awakening, and often is entirely gone. Even when our subjects did recollect some of the events during hypnosis, they would always underrate the time the experiment had

taken, and would say, perhaps, ten minutes or a quarter of an hour, instead of one hour or one and a half hours.

If a visual hallucination be induced, and afterwards changed to another, and this again to another, and so on, it will generally be found that the subject, when aroused, remembers the first hallucination more or less perfectly, but that memory of the succeeding hallucinations is uncertain or even completely absent.

One illusion which I generally produced was that of seeing a bright star or light in the ceiling. The subject would stand in front of me, and look at my eyes for about a minute, while I made light strokes over his brows and temples. Then I would look up, point upwards, and say: "Look at that star; isn't it bright? Look, it is getting brighter; watch it." The subject usually stares upwards with a fixed gaze, and remains immobile for an indefinite time; and if asked whether the star is bright, and whether he sees it, answers "Yes." After a time the suggestion is made that it is getting darker, and that the star is fading away, and at last that it is gone. Almost any other hallucination can then be readily induced. Thus, he can be made to believe that he sees a snake, that he is in a boat, that he is on horseback, etc.; but, when aroused, though he will as a rule remember the first hallucination of the star perfectly, those succeeding will be confusedly recollected or entirely forgotten.

In both the fourth and fifth stages mimicry of

actions occurs—more perfectly in the latter than in the former. In the fourth stage the attention of the subject must be directed to the act in order to produce mimicry. It seems most probable that mimicry is due to suggestion. We take it to be a reflex from the cortex of the brain: the act performed before the subject gives rise to the idea (unconscious) of the movement, which leads to the imitation of the said movement.

Heidenhain attributes mimicry to reflex actions not involving the cortex, apparently because in his subjects auditory suggestions were ineffective.

Stage 6 is marked by somnambulism, suggested anæsthesia, anosmia, etc. The subject attends to the hypnotizer only, is suggestible only by him, and has no memory on awaking.

Effect of Telling to Sleep.—This varies greatly. In some subjects it produces the outward sign of going to sleep, but does not—in a short time, at any rate—otherwise alter the hypnotic state. In others it has an astounding effect, producing almost instantly deep hypnotic sleep, with complete loss of memory on awaking.

It has generally been considered that hyperæsthesia of one or more of the senses is among the earliest signs of somnambulism. Braid, Bernheim, and Gurney so record it. As far as our experiments went, however, it did not appear that the hypnotic processes of gazing, passes, and suggestion of sleep ever produced hyperæsthesia, but that this stage required special

excitation for its production. It is readily produced in stage 5, and can be brought about by direct suggestion or by continued conversation.

Summary of the Stages as found in our Experiments.

Stage 1.—Those voluntary movements can be inhibited by direct suggestion which are most commonly carried out by reflex action in ordinary life.

Stage 2.—Contracture can be produced. Voluntary movements not included in stage 1 can be inhibited.

Stage 3.—The subject can be prevented from stopping a movement voluntarily begun, and made to initiate a movement. Loss of memory for particular facts can be suggested.

Stage 4.—Loss of cutaneous sensation can be produced. Imperfect delusions can be suggested. Memory afterwards nearly or quite perfect.

Stage 5.—Senses more dulled. Visual and other illusions can be induced. Memory afterwards imperfect.

Stage 6.—Somnambulism. Anæsthesia, anosmia, etc., can be suggested. The subject attends to hypnotizer only. No memory on awaking.

Such are the stages when hypnosis is induced by the method described above, without any suggestion of sleep being made at the commencement.

Comparison with Stages of Liébeault and Bernheim.

I have mentioned before that Liébeault and Bernheim have classified the stages of hypnosis according to the maximum degree of hypnotization to be obtained in different individuals in successive trials. It will be convenient to consider at once how far their stages agree with those that are given above.

First degree of Liébeault and Bernheim: The subjects feel more or less torpor, heaviness of the eyes, and drowsiness. A variety of the first degree they consider to be the state in which the subject "n'ont pas de somnolence à proprement parler," but in which he is unable to open his eyes when told that he cannot. This variety we took to be a typical characteristic, for if the hypnotic processes are prolonged, there is no one who would not probably feel some heaviness and drowsiness.

In the second degree of Liébeault and Bernheim (light sleep) the subject is more or less cataleptic. So long as nothing is done the muscles remain flaccid, but when a limb is gently moved it stays in the position in which it has been placed. The catalepsy has various degrees. The limb raised may, after a second or two, sink down. If the whole arm be raised it falls, but if the forearm be raised it is kept up; or while the forearm is kept raised the fingers may not retain the position in which they are placed, or the

limb may be kept raised only if it is held there for a second or two. The intermediate stages between the first and second degree occur when the subject keeps the cataleptic position, unless he is told that he cannot help it, when he moves the limb, and when a subject does not leave his limbs in any position unless it is defined to him by suggestion. It seems likely that there are three constantly consecutive states here confused. In the first the subject is more or less cataleptic when a limb is raised and gently stroked once or twice; but, though told he cannot move it, he can always do so. In the second he is cataleptic, as before; but if told that he cannot move a limb which is in catalepsy, he cannot do it for a time in consequence of the simultaneous contracture of the muscles antagonistic to the action. In the third he is cataleptic, as before; but if told that he cannot move a limb which is in catalepsy, he is unable to do so, although the antagonistic muscles do not contract. This is quite a different state from the second—it is paresis, or paralysis of the muscles. The development of these stages does not follow very closely the development of the stages without drowsiness. The catalepsy between their first and second degree appears to correspond to the inability to make movements in consequence of contraction of the antagonistic muscles in division 2 of our second stage, but is much less developed than when the subject is not drowsy. Paresis and paralysis occur between stages 2 and 3.

In this condition there may be slight loss of memory, but only such as may be seen in an inattentive person.

In Liébeault and Bernheim's third degree (deep sleep) the subject is unable to stop a movement which he has begun when told he cannot do so. This is division 1 of our third stage, but in their fourth degree tactile sensibility may be dulled or abolished. This we never observed except as the result of direct suggestion. Lastly, they can obtain "contracture suggestive." This is division 1 of our stage 2. We have always been able to obtain this before we could prevent a subject from stopping a movement already begun.

Their fourth stage (their very deep state) is characterized by the subjects hearing the operator alone, unless he puts them into relation with other persons. Excepting when the subject was in a state of somnambulism, either of us had no difficulty in producing all the illusions which could be produced by the other. Possibly this was because our subjects regarded both of us in the light of hypnotizers. When experimenting apart from Langley, I often found that the subject would not obey suggestions from strangers, but only from myself. But Langley and I could produce this condition in our fifth stage. If either of us told the subject that he could hear no one but himself, the other would then speak in vain.

The fifth degree of Liébeault and Bernheim (light

somnambulism) corresponds with our fifth stage as given before, except that we found the subjects sometimes obeyed others as well as the hypnotizer, and that sensation was not abolished except by suggestion.

Their sixth degree is one in which the subject himself has no recollection of what he has done while hypnotized.

CHAPTER V

OTHER HYPNOTIC PHENOMENA

Hallucinations—Post-hypnotic suggestion—Negative hallucinations—Anæsthesia—Other phenomena (Effects of passes—Effects of previous deep hypnotization on experimental subjects—Self-suggestion—Effects on sense of touch and temperature—Light sensory stimuli and suggestion).

I. Hallucinations.

As the previous chapter indicated, it is often possible to induce the condition of somnambulism without any direct suggestion of sleep, merely by evoking hallucinations. It frequently happens, therefore, that a subject in stage 5 will spontaneously pass into stage 6, if illusions are induced. Some subjects may lapse suddenly into somnambulism while they are in quite an early stage, but this rarely occurs unless they have been hypnotized on former occasions, and experienced somnambulism then. In other cases the suggestion of sleep induces somnambulism, and this is the method most commonly employed. But it must be remembered that the proportion of subjects susceptible of somnambulism is not great—something under 20 per cent.

Numberless experiments have been made with hallucinations. It is certain that some subjects, when they act as though hallucinated, are not really so, but are compelled to act as though they were, as in the case of L., mentioned above. But I have often had subjects who remembered their illusions, and to whom the hallucinations appeared real experiences; and probably in somnambulism this is the rule.

One of the most interesting studies in connection with visual hallucinations is the behaviour of the subject as regards a suggested illusory picture on a blank sheet of paper. We made a number of experiments in this at Cambridge. The subject was made to see some illusion of a small picture, say, of a pink shell, on a perfectly circular disc of white cardboard, and asked to copy it. He would begin to make a drawing, glancing every few seconds at the illusory picture which he was supposed to be copying. If his attention was distracted for a moment, and the circular disc turned out of its original position without his being aware of it, he at once recognized the fact when he resumed the drawing of his copy, and would rearrange it as it was at first. When he looked at the imaginary shell through Iceland spar it appeared doubled, and if the Iceland spar was slowly revolved while he looked through it, the two images appeared to revolve round each other, just as if the original image were actual. It was quite clear from the experiments that subjects notice extremely small marks, and attach them to the hallucinatory images.

In many cases they recognize a blank card, which, they have been told, is a picture of some kind, and pick it out quite easily when it is mixed with a number of apparently exactly similar ones.

L., mentioned above, could do this, and could also remember that he recognized the card by minute marks, but in his normal state he was totally unable to distinguish it.

II. Post-Hypnotic Suggestions.

But the most striking phenomenon of somnambulism is that of post-hypnotic suggestion. Post-hypnotic suggestions may succeed in the deep state, and even earlier, before somnambulism is reached, but those given during somnambulism work out most strikingly and perfectly. Suggestions given in this way act more powerfully than others, owing, perhaps, in a measure to the fact that the patient carries them out without knowing consciously that they are due to suggestion, so that deliberate resistance is absent.

It is still a matter of dispute whether the subject is in a normal condition during the performance in his waking state of an action which has been suggested during his sleep. Some subjects certainly are in an abnormal state, for, having carried out the suggested act, they forget all about it, and are quite unaware that it has been accomplished. For the moment they appear to have returned to the state of somnambulism. But a large number remember their action perfectly well, and their condition is not distinguish-

able from the normal. If, however, hallucinations are thus induced, I have observed that during their persistence the subject often presents an appearance of abstraction which is not natural to his normal state.

The experimental enforcement of a post-hypnotic suggestion, as a rule, presents but little difficulty. The patient may be told that he will perform the action either on awakening, or at some particular hour, or after some specified event. I have often told a subject that he will do some trivial action, such as light or blow out a candle, when I look at my watch. A very considerable length of time may be made to elapse between the making of a suggestion and its accomplishment. Some twenty years ago I suggested to a subject who was deeply hypnotized that exactly a year after he should see me come into his room while he was at breakfast, that I should say "Good-morning," and then vanish; and this succeeded after even that lapse of time. The person concerned, however, was extraordinarily suggestible—the best subject, I think, that I have ever seen.

But though it is generally easy to enforce these suggestions, it is not always so, even in subjects who carry out other than post-hypnotic suggestions readily. Occasionally one meets subjects who will not respond to even the simplest post-hypnotic suggestion, but such resistance is not common. And in many of these cases I have found that, if the subject be instructed to do something on awakening, he will generally obey if he be made during his sleep to

state what he has to do, so as to ensure that he really understands. For he is sometimes so lethargic that he cannot assimilate a suggestion unless he is partly roused; making him repeat the suggestion, and so ascertaining that he has comprehended it, overcomes this difficulty.

The subject of negative hallucinations and anæsthesia properly belongs to the deep state and somnambulism, though anæsthesia can sometimes be induced in the earlier stages.

III. Negative Hallucinations.

A negative hallucination is that in which the sensation of a real nerve stimulus is unperceived. I have often suggested to somnambulic subjects that I, or some other person in the room, is invisible. They then cease to notice the invisible person, and may even sit down on his lap instead of the chair, which they imagine to be empty. But it is clear from their behaviour that they generally do realize the supposedly invisible person or thing, though perhaps not in the same vivid manner as that in which they see other people, seeming to be aware of the cancelled presence in a dreamy kind of way, as if only a part, and not the whole, of the consciousness perceived it. That such a subject actually may realize the invisible person is shown by the following experiment, which I often made with some of my Cambridge subjects. I could hypnotize many whom I had hypnotized on previous occasions by suddenly gazing intensely at

them. They would often pass instantly into deep sleep, with catalepsy. I have frequently made myself invisible to those subjects, but even when one of them acted as though he could not see me, I found that if I caught his eye, and suddenly gazed intently at him, he always immediately passed into catalepsy, thus showing conclusively that he had really perceived me.

The subject may be made colour-blind to different colours, and experiments on the complementary colours of invisible, as well as of suggested hallucinatory, colours were made on our Cambridge subjects, but these are beyond the province of this book. It is possible to induce negative hallucinations of the other senses as well. Thus the subject may be rendered incapable of hearing a particular person speak, or of tasting sweet or bitter, though the sense of taste is more difficult to influence.

IV. Anæsthesia.

But the most interesting of all the negative hallucinations is certainly the cutaneous anæsthesia and analgesia which can be evoked by suggestion. Suggested anæsthesia, as seen during hypnosis, is simply the non-perception of the particular sensation which the subject has been told that he cannot feel, the other cutaneous sensations remaining intact. It is easier to abolish or diminish sensations of touch than the sensations of heat and cold, and the abolition

of the sense of touch is generally accompanied by rigidity of the limb experimented on.

But the condition is one of great complexity. Take the following simple experiment, which I tried on several people. Having concealed the subject's hand from his view by means of a simply-arranged screen, I suggested that he would be unable to feel a prick with one point of a pair of compasses, but that he would feel at once if pricked with both points. I found that I could draw blood without making him flinch if I pricked him with one point; but he rebelled immediately if I pricked him with both points. Also, he could be made to feel the touch of soft cotton-wool, and yet be quite impervious to a sharp needle prick, and in one case even to the scorch of a burning match.

Here the subject clearly must in some way perceive both sensations; but, in addition, he must mentally differentiate between the two, and reject one, while he accepts the other, and allows himself to feel it. It is very difficult to form any lucid idea of this complex act, but I believe that the result is due, not merely to a failure to perceive, but also to an inhibition of his power to conceive the forbidden sensation. This theory may explain the following experiment, which I made on one or two subjects at Cambridge, and on one since I left there.

The subject, whom I had hypnotized on previous occasions, and who, I knew, could be readily rendered anæsthetic, was asked to sit in an arm-chair. I then

placed his hands on the arms of the chair, but in doing so passed his palm lightly over the bristles of a brush which I had fixed to the outside of one of the arms, so that he could not see it. I then immediately suggested that the hand could feel nothing. When next I asked him what I had done to his hand before rendering it anæsthetic, he could not recall anything. When sensation was restored, however, he immediately remembered that his hand had been passed over a brush or some similar surface. By rendering him anæsthetic immediately after the stimulus had been applied, I gave no time for the sensations to be linked up with other ideas by association. Probably he could not recall the stimulus, because the power of conceiving such a sensation was temporarily inhibited, but I have not made the experiment often enough to be sure that suggestion was entirely eliminated.

The rest of this chapter is devoted to the effects of light stimuli and to the brief consideration of certain other phenomena which have not been mentioned in the previous chapter. The experiments described were made by Professor Langley and myself on Cambridge undergraduates.

V. Other Phenomena.

1. *Certain Effects of Passes.*—During the waking state, contracture, as mentioned before, can often be produced by passes, each downward stroke causing a

little further contraction, and each upward stroke or pass a decrease of contraction.

O., for instance, when his fingers are stroked downwards, gets his hand more and more extended until the fingers become rigid. Stroking in the opposite direction over any one finger causes slight relaxation in it. Thus, according to the number of up-and-down strokes, different fingers can be brought into any degree of stiffness.

This general effect of reverse passes and strokes is well known. The following experiments will show certain further details; they were first tried on a waking subject, A. After a variable number of strokes the fingers, or any one of them, became insensitive to needle-pricks, or to induction currents of moderate strength, and to the strokes of the operating finger itself. A. sat down and passed his hand through a hole in a screen, resting it, palm downwards, on a table on the other side. Thus he was unable to see his hand or us, and could not tell what we were doing to it. He was asked to say "Yes" when he felt anything touch his hand. When a stroke was made downwards, he said nothing; when a stroke was made upwards, he said "Yes." This was perfectly constant, so that with up and down strokes he felt those made upwards but not those made downwards. If the upwards were repeated several times in succession, the next following down stroke would be felt, but the subsequent ones were not.

This state of insensibility is associated with sensory

stimuli, starting in the upper part of the finger and progressing downwards. The restoration to the normal state has thus become associated with sensory stimuli progressing in the opposite direction. The ordinary effect of reverse passes is to restore the part to its normal condition. In the stage of moderate insensibility, which I have mentioned above, each upward stroke produces a temporary return to the normal, but is insufficient to destroy the effect of the more numerous downward strokes.

This phenomenon can also be produced in the fourth and fifth stages of hypnotism. This we verified in two subjects, B. and S. In S. the second and third fingers were after some time rendered rigid and insensitive by downward strokes. S. was told to say "Yes" when he felt anything touch his hand. When the first and fourth fingers or thumb were touched, he said "Yes." When the second and third fingers were touched, he said nothing. The second finger was then stroked upwards half a dozen times without producing any effect. It was bent and unbent, and stroked upwards for about half a minute, until at last he said "Yes." Then the slightest movement upwards was felt, but stroking downwards was not. It was sufficient even lightly to drag a needle, laid flat, on the finger upwards, without moving it over the surface of the skin.

2. *Persistence in the Earlier Stages of Changes induced in Deep Stages.*—As has already been said, when a subject has once been deeply hypnotized

great care must be taken in drawing any deductions from his subsequent behaviour in the light stages of hypnotism. This is necessary, because some of the phenomena formerly induced in the deep stages can afterwards be obtained in the light stages. Apparently Bernheim's observations on the waking phenomena were made only on subjects who had previously been deeply hypnotized. Although possibly this persistence of impression may be related to the phenomena of post-hypnotic suggestion, it must not be confused with it. A good example is shown by the possibility of producing anæsthesia in the waking stage if this has once been produced in the deeper state. Thus, in S. neither passes, stroking, nor suggestion, produced contracture or anæsthesia in the waking state; in B. we could produce contracture, but not anæsthesia, in the waking state; but, after they had been deeply hypnotized, and anæsthesia induced in the deep state by suggestion, we could subsequently induce anæsthesia in the waking state. The effects of suggestion frequently persist long after the suggestion has been removed. Thus, M.'s strength was tested with a dynamometer. Paralysis of the arm was then suggested. He did not recover his strength for some time after he had been told that his arm was restored to its normal state; and the result was the same when the trial was made during deep hypnosis, or immediately after waking.

3. *Self-Suggestion*.—Many subjects can to a certain extent bring themselves into the states induced by the

hypnotizer. Practice increases this power. L. could readily send himself into a condition in which delusions could occur ; D., by stroking his eyes and thinking of being unable to open them, soon found himself unable to do so ; he could do the same with one eye, leaving the other in its normal state. The power of the subject to induce contracture in himself has various stages. For instance, in making the hand rigid these are :

(*a*) The subject thinks of contracture and makes passes over his hand.

(*b*) He looks at his hand and thinks of contracture.

(*c*) He thinks of contracture without looking at his hand.

Thus, B. was able to do (*a*), but not (*c*). When his hand was put through a screen, he was unable to stiffen it himself. C. developed great power in this direction, and, when laid across three chairs, with his head on the first and his heels on the other, he could gradually make his whole body rigid, so that the middle chair could be taken away, while he still kept his position without any strain, a position which he was entirely unable to maintain unless he caused his muscles thus to pass into contracture. Still, even in this case contracture came on more readily if someone made passes over his body. He was also able, to a considerable degree, to prevent contracture coming on when passes or strokes were made over his hand or arm—so much so that, though the hand or arm

became stiff, he had not more than a momentary hesitation in moving them when he tried.

F. and H. put their hands in front of them, palm to palm, and then, thinking of being unable to part them, found that they were for a time unable to do so. In these cases the arms became rigid, and the force required to part them seemed to be greater than that required when the subject exerted his maximum voluntary effort to prevent his arms from being separated. F. at first could prevent himself from separating his hands only by closing his eyes and imagining the operator looking at him; later he could do it without this. Apparently all the above phenomena are due to contracture. J. states that it is possible, by imagining himself unable to remember some simple thing, to prevent himself for a time from remembering it. It is noteworthy that the power of self-suggestion has no direct relation to the degree of susceptibility to hypnotism; in fact, the occurrence of self-suggestion in a previously good hypnotic subject did in some cases decrease his susceptibility to hypnotic suggestion to a very considerable extent. On the other hand, a large number of good hypnotic subjects appeared to be unable to produce the slightest effect upon themselves by self-suggestion.

4. *Effects on the Senses of Touch and Temperature.*— Heidenhain has mentioned that in the one-sided catalepsy which may result from stroking the top of the head, the sense of touch disappears from the cataleptic arm before the sense of temperature. We

also found this to be the case when strokes or passes were made over an area of the skin in subjects susceptible of a certain degree of anæsthesia. We generally experimented as follows:

The subject, without any hypnotic process having been performed on him, was asked to put both his hands through a screen on a table, and to say when he felt anything touching or near his hands, and also to say what he felt—whether warmth or chill, a touch or a prick, and so on. Passes or strokes over one of the fingers were next made; then at short intervals this finger and the other parts of his hand as well were touched with a needle, or a weight was placed on them, the temperature of which was noted. In this way we found that, while the subject felt normally in all parts of his hand except the finger operated upon, in this the sensation of touch, and of moderately severe pricks with the needle, disappeared at a time when he could still recognize at once warm or cold objects. Thus a 20-gramme brass weight at the temperature of his hand was not felt when laid on the finger operated upon, while similar weights, either hotter or colder, were readily felt. Thus, too, if the finger operated upon and that next to it were simultaneously stroked, he would say: "You are passing something warm over one finger and stroking the other." Strokes or passes made the anæsthesia more definite, so that only very strong induction shocks were felt, while at the same time the sense of temperature was dulled, so that the hot or cold body was not felt at

once, as it was elsewhere, but only after an interval of two or three seconds. It is difficult to make out clearly exactly at what point the sense of warmth disappears, since the application of a warm body tends to do away with the anæsthesia. Thus, after the application of a hot weight to an insensitive area of skin for a very short period, it becomes sensitive to the prick of a needle. This does not occur after the application of a cold weight; but our experiments were too few to prove more than the main fact of the disappearance of the tactile sense, and the slight loss of the sense of pain before there is any appreciable diminution of the sense of temperature.

5. *Light Sensory Stimuli and Suggestion.*—It is not easy to separate the effects of suggestion from those of light sensory stimuli. Braid and most subsequent observers have attributed an effect to both. Bernheim considers that, though passes and such light sensory stimuli may have results, they owe this effect mainly to aiding suggestion, much as an energetic gesture or an impressive demeanour increases the same power. The difficulty here concerns the meaning of the word "suggestion." Its first and obvious meaning implies that the subject is conscious of the prompting, and that he has a conscious idea of the result which the hypnotizer attempts to obtain. It is to this sense that the term "suggestion" should be limited; but the meaning may be extended to include the formation of an unconscious idea—*i.e.*, the production of those changes in the brain which occur in the formation of

an idea without those changes which cause the idea to become conscious. Since, however, probably no sensory stimuli can affect the cortex of the brain without giving rise to those changes which are fundamental to the formation of an idea, the extended term "suggestion" would seem merely a way of saying that the light sensory stimuli which cause hypnotic phenomena do so by acting on the cerebral cortex. This, at any rate, appears to be the case in all the phenomena we observed; but, as we made few experiments on the deepest stages, it may be possible that in these stages some of the phenomena may be due to reflex actions from the lower centres of the brain or from the spinal cord, without any change in the cortex. At any rate, there appears to be no doubt that (*a*) sensory stimuli may give rise to a hypnotic phenomenon without the subject's having a conscious idea of the phenomenon before it occurs; (*b*) that sensory stimuli of which the subject is not conscious may produce hypnotic phenomena.

Many effects produced by sensory stimuli in the deeper hypnotic stages appeared to show this; but, as in these stages it was impossible to prove whether the subject was unconscious or not, the conclusions are based on the observations made in the early stages, in which the subject could say whether he did or did not feel. It may be suggested that we were completely at the mercy of the subject, and that, except when we applied strong induction currents, he could deceive us as he liked. If (*b*) can be shown, it may

appear to be necessary to show (*a*) as well, as the two states differ in that in (*a*) the subject is conscious that something is being done, whilst in (*b*) he is unconscious of it; it may, therefore, be worth while to deal with them separately. With regard to (*a*), when the hand of the subject is stroked, producing first rigidity, then loss of sensation, even supposing that it was suspected that loss of sensation might follow rigidity (and some subjects averred they had no expectation of that), it is, we think, certain that none of them had any idea that the sense of touch would disappear before the sense of temperature. When one or more fingers of the hand passed through a screen are made insensitive, they recover sensation, if left alone, in a minute or two; but if continuously stroked, and very lightly, so as to avoid a pull on the rest of the hand, the fingers remain insensitive. With regard to (*b*), the difficulty with many of our subjects was that, when a pass was made over any part of the hand, the whole hand and also the whole arm became rigid. Besides this, when a hand was extended behind a screen, after a few experiments it would often become rigid, even when nothing was done to it. The simple expectation that something was to be done was quite sufficient to cause contracture. In such cases, when the hand became rigid after passes, and the subject declared that he had not felt anything near that hand, the stiffness might have been caused by self-suggestion, and not by unfelt passes, so that no reliable conclusion could be drawn, except after a

long series of experiments, comparing the number of times when spontaneous rigidity occurred with the number of times stiffness occurred after unfelt passes or other similar light stimuli.

Such a method at the best is imperfect. Cases, therefore, in which spontaneous rigidity occurred, are here omitted, except the following example, in which there was a movement simultaneously with each unfelt movement of the operator's hand. H. placed his hand through a screen, and passes were made three or four inches above it. The hand gradually closed, a slight closing movement occurring at each pass. Eighteen passes were made before the hand was completely shut. During twelve, which were made at irregular intervals, the hand shut only when a pass was made, but after these a movement sometimes took place between the passes. H. declared that he felt nothing, except that his hand was closing. Of course, it is possible that the passes coincided in time with the spontaneous movements of the hands, but this chance is extremely unlikely. The most satisfactory cases are those in which the hands do not become spontaneously rigid, and in which the fingers can be made rigid and insensitive separately. Gurney recorded a case which very nearly fulfilled these conditions, and he found, when the fingers of the operator were held above one of the fingers of the subject, that nearly always that finger, and that alone, became insensitive. We did not meet with any case so satisfactory as his. With A., however,

there was considerable, but not complete, insensibility, which was for a time, at any rate, confined to the part operated upon; and during an experiment of an hour's duration spontaneous rigidity or insensibility did not occur once.

The following experiment was the first to be made on A., and is given here, since he was then least likely to know our object: He extended both hands through the screen, placing them palm downwards on a table, with the fingers separated. We made passes at about an inch distance over the first and second fingers of his left hand. After about a dozen passes the fingers and various parts of the hand were lightly pricked with a needle, and he was asked to say "Yes" when he felt it. He said "Yes" except when the last two joints of the first and second fingers of the left hand were pricked. These were then pricked hard without his taking any notice. A few passes were next made over the same two fingers, and a 20-gramme brass weight at the temperature of the room, producing a distinctly cold feeling when touching the skin, was placed on one or other of the fingers. As soon as it touched any part of the hand, except the two end joints of the first and second fingers, he said "Yes." When it was placed on these he said "Yes, something cold," in time varying from three to ten seconds according to the different joints. We asked him: "Do you know whether any passes have been made?" "No." "Are any of your fingers stiff?" A. then began to lift his hand from the table as a preliminary

to closing them. Langley said: "Stop! Cannot you tell without moving your hands?" "No; both hands are cold." "Well, try to shut them." The right hand closed at once, the left slowly, the first and second fingers remaining stretched out after the others.

In such cases there can be little doubt that a state of expectation that some part of the hand will be sent into contracture and made insensitive greatly aids, if, indeed, it is not necessary to, the effect of unfelt passes. The following case shows that the state of expectation is sometimes essential to success: C3, whom I had previously hypnotized, and whose hands could readily be made insensitive, was asked to put his hands through a screen, as above. I tried, by passes and by pointing at his fingers, to render them insensitive, without making any suggestion as to what I was going to do, but failed entirely. I then said: "I am going to try to take away sensation from the different parts of your hand without your knowledge." After this I succeeded perfectly.

As the hand passes from contracture to insensitiveness in the early states, the following changes usually take place: First, the hand is in contracture; there is no change in temperature and no loss of sensation. A little later, however, the hand is contracted without, or sometimes with, change of temperature (becoming cool), and with just an appreciable dulling of the tactile sensation; there is also a slight loss of muscular sense. In a further state the hand is in contracture,

becomes distinctly cold, and experiences more or less dulling of sensation. The loss of muscular sense is considerable. None of our subjects showed loss of sensation without contracture, except those who either had been or could be deeply hypnotized. Even in the fourth and fifth stages it was easier to produce loss of sensation if contracture had previously been induced.

CHAPTER VI

TREATMENT BY SUGGESTION

Introductory (Liébeault)—General principles — Forel's list of amenable diseases—Typical maladies for treatment (Hysteria [Note on Freud]—Neurasthenia—Primary Vaginismus Dipsomania — Morphinomania—Stammering—Insomnia — Enuresis nocturna—Constipation—Diarrhœa — Obsessions —Epilepsy — Sexual disorders — Sea-sickness — Chorea— Insanity)—Value of prolonged, sleep and of suggested anæsthesia—Closing Note.

I. Introductory.

The chief practical interest of hypnotism lies in its use as a therapeutic agent. Liébeault of Nancy first drew the attention of the medical world to the subject, and it is to the Nancy school, created by his work, that we really owe most of what we know of its practical applications, as well as the most widely accepted theoretical views of its nature.

Few men, I think, have shown such real heroism as the once humble doctor of Nancy. He commenced his professional career as a country practitioner, and in 1860 began to study hypnotism and to use it in his practice. In 1864 he removed to Nancy, and specialized in hypnotism, giving his services quite

gratuitously to the poor, and living himself on the small private means which he possessed. For two years he worked hard at his first book on the subject, to be rewarded by the sale of only a single copy. But in 1882 he happened to effect a cure in a case of sciatica which had baffled Professor Bernheim for years. This brought Bernheim to see his practice, and what he saw made him a warm admirer and an enthusiastic follower. It speaks wonders for the pioneer that all those years he never faltered, but went on quietly with his work, unrecognized, unrewarded, regarded half-contemptuously by other members of his profession as a kind of crank. But Liébeault worked not for himself, but for his beloved poor, and their gratitude and affection were his sufficient and only reward. From the date of Bernheim's conversion began Liébeault's rise to fame, and after his death his name was added to the roll of honour of his most distinguished countrymen by the Government of France. He was a great man, the nobility of whose character surpassed even the value of his work.

Though I had studied hypnotism some years previously, it was at his clinic that I first saw it employed therapeutically. Medical men of every nation went to him to learn, and all were welcomed. Among others, Dr. Lloyd Tuckey went to see the famous clinic, and, impressed by his experience, he commenced treatment by suggestion in London. Later on, Dr. Milne Bramwell, who had used hypnotism with great success in

his practice at Goole, came up to town and devoted himself to this kind of work alone. But the treatment at first met with strong opposition in this country, and still has many adversaries here. Of these, however, few seem to have really studied the subject, and many have never even seen a patient hypnotized. It is to Lloyd Tuckey's perseverance and Bramwell's determination and courage in advocating the claims of the new treatment that hypnotism chiefly owes its recognition in England as a legitimate addition to our armoury of healing.

Of course, it is impossible in a work like this to give more than a mere sketch of the results of treatment by suggestion, and altogether impossible to give a complete list of the different kinds of ailments which are said to have been benefited in this way. At present we do not know the limits of its usefulness, and it seems probable that it may yet be found to influence maladies to which at present it has not even been applied. But one may easily claim too much for it, and so bring it into discredit. It is an adjunct to medicine which is highly important, because certain types of disease appear to be amenable to it that can scarcely be influenced at all by other means, and because it can reinforce other more usual remedies by creating and maintaining a healthy condition of mind.

II. General Principles of Treatment.

In treating cases it is, I believe, best, as Moll holds, to aim at inducing as deep a hypnosis as possible. But, as he points out, it does not follow that the light stages are of no value. This is a mistake. He goes on to say: "I cannot, however, agree with those who regard the light stages as equally useful therapeutically with deep hypnosis." Liébeault also rightly insisted latterly that the best results are obtained in deep hypnosis; but, as the same writer points out, "much depends upon the character of the subject. For example, A. may be as susceptible to suggestion in the light stage as B. in the deep one." With these opinions I cordially agree.

When using hypnotism for therapeutical purposes it is well to bear in mind Sidis's advice—to make the suggestion as direct and precise as expression will allow.

It is not possible without trial to determine whether the subject is deeply hypnotized enough to respond to the desirable therapeutic suggestions. This, as a rule, can be ascertained only by actual experiment. But once we have hypnotized him as deeply as we can, even if he reaches only a light stage of hypnosis, it is always worth while to try the effect of suggestions of cure. It is astonishing how well many subjects respond to such suggestions, even when the signs of hypnosis are only just discoverable.

III. Forel's List of Diseases Amenable to Suggestion.

Forel gives the following list of diseases as responding to treatment by suggestion :

Spontaneous somnambulism.

Pains of all descriptions, especially headache, toothache which does not depend on an abscess, etc.

Sleeplessness.

Functional paralysis and contractures.

Organic paralyses and contractures (as palliative means).

Chlorosis (results extremely favourable).

Disturbance of menstruation (metrorrhagia and amenorrhœa).

Loss of appetite and all nervous digestive disturbances.

Constipation and diarrhœa (provided that the latter does not depend on catarrh or fermentation). Gastric and intestinal dyspepsia (including pseudo-dilatation).

Psychical impotence, pollutions, onanism, perverted sexual appetite, and the like.

Alcoholism and morphinism (only by the suggestion of total abstinence).

Chronic muscular and arthritic rheumatism, lumbago.

The so-called neurasthenic disturbances.

Stammering, nervous disturbances of the vision, blepharospasm.

Pavor nocturnus of children.

Sickness and sea-sickness, the vomiting of pregnancy.

Enuresis nocturna (often very difficult on account of the depth of the normal sleep).

Chorea.

Nervous attacks of coughing (also in emphysema).

Hysterical disturbances of all kinds, including hystero-epileptic attacks, anæsthesia, phobias, and the like.

Bad habits of all kinds.

All hypochondriacal paræsthesias, irritable weaknesses, conceptions of impulse, and the like, are more difficult to cure.

Other authors give many other complaints as amenable to hypnotic suggestion, but it would serve no useful purpose simply to extend the list.

Those enumerated above give a sufficient indication of the classes of maladies in which the treatment has been found successful. Most of these appear to be examples of functional neuroses in which no organic lesion can be found.

IV. Typical Maladies.

I shall not attempt here to give an account of the results of this form of treatment in all these diseases, but shall speak only of a few. Some, such as dipsomania, are fertile in cases, and eminently suited for suggestive treatment; others, such as primary vaginismus and psychical impotence, though rarer afflictions, are sufficiently common to be of real practical

importance, and can, I believe, generally be cured by no other known means. The regulation of the menstrual functions and constipation are worth consideration, because they illustrate remarkably the results of suggestion as affecting functions which are not under the control of the will, and seem to suggest possibilities of cure as yet unrealized. Two nervous complaints — hysteria and neurasthenia — deserve notice, not because they are readily amenable to this kind of treatment, but because they are not nearly so easily touched by it as is commonly supposed. In the case of hysteria, the real difficulty lies in inducing hypnosis; in neurasthenia, even when hypnosis is induced, the consequences are too often disappointing.

1. *Hysteria.*—In hysteria, when the patient can be hypnotized, the prognosis as regards the removal of the symptoms is generally favourable. Bramwell records several cures, and Forel counts fifteen cures out of twenty-eight cases of hysteria. But sometimes, as Tuckey points out, the patient relapses even during treatment after a temporary improvement. In my own practice, out of eleven cases of hysteria I succeeded in influencing only six, but in five of these the symptoms vanished rapidly. Two were cases of aphonia, one of functional paralysis, and one of apparently *grande hystérie*. One case of complete hysterical deafness, which improved enormously under suggestion, relapsed some months afterwards, when the treatment could no longer be continued.

I am convinced that some of the earlier cases with

whom I failed would have succumbed had I then had more experience. Some such patients are easily hypnotized, but in no condition does it require so much experience to induce hypnosis successfully as in a difficult case of hysteria, for in hysterics we are dealing with the most extreme examples of self-suggestion; they are, in fact, already *en rapport* with themselves, and there is really no certain, or even nearly certain, method of conquering this auto-hypnosis. Sometimes one can weaken this *rapport* by carefully-planned suggestions given during ordinary conversation, the intention being to get the hysterics either to suggest to themselves that they can be hypnotized by the operator, or to absorb into their self-suggestion the ideas of cure. Some who really wish to be cured succeed in doing this, but even willingness does not always insure success. And those who do not sincerely wish to be cured, whose symptoms are the result of a hysterical longing for sympathy, or the perverted gratification of some obscure desire, are often quite impossible. But hysterical cases are always, at any rate, worth a trial.

The most interesting case that I had the opportunity of treating was that of deafness, above mentioned. The patient was the wife of a non-commissioned officer, who had become stone-deaf after her confinement four years previously. She was recommended to try hypnotism by Mr. Yearsley. When I first saw her she could hear nothing whatever, and her husband informed me that since the onset of her

deafness she had become intensely irritable. I wrote out the directions that I wished her to follow, telling her that I should ask her to lie down, that I should close her eyes and make a few strokes over them, and that I should then make suggestions which she would hear, though probably not consciously, and that when I roused her she would hear. But she did not hear when I awakened her. However, when her husband brought her again, he told me that, half an hour after she left my room, her hearing had suddenly returned, and that she had complained of the noise of the whistle of the engines during her homeward journey, and had understood what he said to her. Within an hour or two, however, the old condition returned. Unfortunately, circumstances made it impossible for her to come to me oftener than once a week, except during one week, when she came twice. However, she gradually improved, so that on the ninth and last occasion on which I saw her she could hear fairly well. Her irritability of temper was also much lessened. On the third occasion she told me that, though she could hear every word that I said, she forgot each word as soon as she heard it—a rather interesting mental condition. It was remarkable, too, that, for a long time even after she could hear, she seemed afraid to trust herself, evidently uncertain whether her newly restored sense was a correct reporter. She returned to India, and I was disappointed, though not surprised, to hear that her old condition had gradually returned, and that at the

end of four months she was as deaf as before. It was unfortunate that she could be hypnotized so seldom, for one may fairly suppose that, with longer and more systematic treatment, the result would have been more lasting.

Another case was that of a lady, married for seven years, with two children. From childhood she had been liable to attacks of excitement and depression, apparently of a hysterical kind. An early love-affair had greatly upset her, and during the whole of her married life all sexual feeling had been completely absent, while the whole idea of fulfilling her marital duties had become revolting to her. She was in a condition of great misery, filled with self-reproach because she felt that she was treating her husband wrongly, and intensely depressed. Yet in eighteen days she completely recovered under hypnotic treatment, and for nearly two years has remained well.

In hysteria and allied conditions, such as neurasthenia, other methods, such as that of Dubois, mentioned in a previous chapter, may be of great benefit. But any description of such psycho-therapy would be incomplete without allusion to the method of psycho-analysis, ably elaborated by Professor Freud, of Vienna.

Freud attempts to show that in hysteria and other psychic maladies the true focus of the disease consists in a painful idea or group of ideas, voluntarily driven back into the sub-consciousness of the patient. These impressions are so distressing at the time when they

are received that the sufferer refuses to contemplate them, but endeavours to crowd them out of his consciousness, often so successfully that he actually cannot recall them. They remain, however, permanently fixed in the sub-consciousness as centres of disturbance, unless they can be made to "abreact." By this term Freud means that they find some outlet by which they and their emotional contents are released from their state of suppression. As an example of abreaction in normal life, take the man suffering under an insult. If he cannot retaliate, the impression may be so agonizing that he suppresses it; under certain conditions it may then become a focus of mental disorder. If, however, he has knocked his insulter down, the impression will then have found a natural outlet, or have "abreacted," and so been dissipated and made harmless. The therapeutically important discovery of Freud is that, if the patient can be made to recall the original impression, and to discuss it with someone else, such discussion in itself constitutes a sufficient abreaction, so that both the impression and the symptoms of hysteria which were its former manifestation simultaneously disappear.

It will be obvious that all painful impressions, even when suppressed, do not cause morbid conditions. This happens only when the suppression gives rise to "trauma," which Freud believes to consist in such a partial splitting of consciousness as we have found to occur in hypnosis. Granted that an impression is a

painful one, that it is frustrated of abreaction, and that the suppression results in this trauma, we have all the factors for the development of some forms of hysteria. While other sub-conscious ideas dissipate their forces in course of time, these nonabreacted ideas remain permanent foci of hysterical symptoms. It is the fact that they have not abreacted which gives them their permanence. Yet, however long they have persisted, once they have been discovered, restored to the primary consciousness, normalized by becoming part of that, and made to abreact by discussion in ordinary conversation, they cease to be noxious, and the symptoms dependent on them must vanish.

The trauma, as mentioned above, consists, according to Freud, in a splitting of consciousness, the result of which we already know to be increased suggestibility, and the symptoms may be due to some suggestion received at the time of the infliction of the original trauma. Thus, in one case mentioned by Freud the arm of the patient happened to have "gone to sleep" from hanging over the back of a chair when the trauma occurred, the result being an eventual development of hysterical muscular paralysis. Other symptoms may appear, not so simply and directly caused. For reasons which he gives fully, Freud concludes that in all these cases the original mischief is sexual in nature.

The actual technique of Freud's method of inducing the patient to recall the original trauma, though

simple in principle, is very difficult in accomplishment. It demands great and varied experience, infinite patience, and a lavish allowance of time, for months may elapse before the "non-abreacted" idea is unearthed. The patient is made to lie down, become as passive as possible, and tell the whole story of his troubles. There are gaps of remembrance in the tale, and these are carefully observed. The physician encourages and persuades him to recover these missing details, and may partially succeed at this point. When the patient can recall no more, he is urged to remain entirely passive, while the physician steadily requires him to express whatever image or thought of the past rises to his mind, no matter how trivial or irrelevant it may appear, since these disjointed ideas, it is explained, are really fragmentary memories of the whole that must be rescued from oblivion. Any detail then told by the subject almost invariably unriddles his nervous history. Some casual scene of long ago may recur, the echo of some name may stir the memory, some long-forgotten object may repicture itself on the mind. So fresh starting-points of inquiry are captured, from which, finally, the actual event which caused the original psychic trauma is divined and thoroughly explored. It is obvious that such a method requires powers of insight, deduction, and sympathy amounting to a kind of genius. As every patient shows unconscious resistance to the demand for recollection, and as many subjects intentionally withhold the

crucial fact when it *is* remembered, the personality of the physician counts for more in this form of treatment than in any other.

Of course, the method is applicable only to people who will not persist in consciously withholding facts which they may feel reluctant to confess, whether from shame or other motives. Freud himself at first used hypnotism to discover the non-abreacted impression, but he gave it up, as he found, like most other experimenters, that the proportion of hysterics who were sufficiently susceptible is very small. It is, I think, clear that if Freud's view of hysteria be correct, we cannot hope by direct suggestion to do more than relieve the particular symptoms of hysteria which happen to be prominent at the time, the actual source of mischief being beyond the reach of hypnotism. But I cannot discuss this remarkable method further. I hope that I have already said enough to awaken in the reader a desire for fuller information, which he will find in the writings of Freud himself.

2. *Neurasthenia.*—How far neurasthenia is amenable to suggestion is still a matter of uncertainty. Some consider that it is mere waste of time to apply the treatment to this condition; but others have had good results. I cannot help thinking that much want of success is due partly to the fact that so many cases classed as neurasthenia contain as well a large admixture of hysteria, and partly to the lack of simultaneous ordinary treatment.

Forel gives two instances of cure in what was probably pure neurasthenia, or nervous exhaustion from overwork. Neither of these cases, however, was apparently of very long standing. He failed in another, where there was an added psychopathic condition. In a case of pure neurasthenia of at least seven years' standing I once succeeded in effecting a cure in a fortnight. This I attribute to the fact that there was no complication with such another state as hysteria. But many of these cases either fail to improve at all, or else mend so slowly that one despairs of effecting a cure within the limits of a lifetime.

Dr. Tuckey tells me that he has observed that neurasthenic patients not infrequently exhibit a varying susceptibility from day to day. I have seen two corroborative cases. Readily influenced one day, on the next occasion neurasthenics may prove absolutely unhypnotizable; and yet again, on the next, they may be as susceptible as ever. For this reason one need not give up all hope of successful hypnosis until after a great number of fruitless attempts, since any day the subject may suddenly surrender. Yet even when readily hypnotized, the neurasthenic patient often shows no real signs of recovery, or only signs so trifling that the good results are negligible. In the great majority of cases a long course of treatment has to be maintained, the improvement, if evident at all, being extremely slow.

But occasionally, as in the case above mentioned,

the cure may be strikingly rapid. The patient was a gentleman of forty-eight, of exceptional ability. He came to me with a history of at least seven years' neurasthenic symptoms. He had always been nervous from childhood; and anxiety, due to worry over business matters, had brought on neurasthenia which, after expressing itself more emphatically during the last two years, had for six months been so acute as almost completely to incapacitate him. He detested meeting anybody, could scarcely bring himself to speak to a stranger, dreaded his work, and was intensely depressed. He was "nervous," too, in the popular sense, for he could hardly keep still for a minute at a time when I first saw him. He was also considerably wasted. But he happened to be a good hypnotic subject, and within a fortnight his condition had improved enormously. Indeed, after his first hypnosis, his chief symptoms, such as the fear of meeting strangers, had almost vanished. By the end of a fortnight he was rapidly on his way to recovery. He had perceptibly put on flesh; and, although he had then to pass through an ordeal in the Law Courts that might well have wrecked anyone, he escaped unscathed, and has continued to improve ever since. He is now as well as he can be, though, of course, he will never lose the organic nervous tendency which he has had all his life.

But such histories are, unfortunately, rare. As a contrast, I have had another case under my care for nearly two years, and the improvement in his con-

dition is almost non-existent. Yet, if he gives up his visits, he gets worse at once, so that he insists on continuing the treatment, though I have often urged him to cease. His symptoms are chiefly phobias of various kinds. Dr. Maurice Craig confirmed the diagnosis of neurasthenia.

Generally, as one might expect, the longer the disease has lasted, the longer does it take to cure, though there are exceptions, as the case first quoted shows. But until we have some means of more accurately discriminating the different forms of disease now comprised under the name of neurasthenia, there is little prospect of discovering, except by actual trial, whether any particular case is suitable for the treatment or not. Otherwise the proceeding may not infrequently prove to have been a mere waste of time.

Neurasthenics often find it very hard to fix their attention for even a very short time, and the difficulty of getting limitation of consciousness is naturally considerable. I always make a point of trying to isolate some idea, or set of ideas, which they consider a possible point of concentration, before I attempt hypnosis at all—and this not only with neurasthenics, but with all patients of unstable attentiveness. It is often useless to try to make them think of sleep and its symptoms, for many of them cannot; but I find that several can concentrate their minds on the scenes of home or childhood; and then the reiterated suggestion of sleep, with monotonous stroking of the forehead, as practised by Sidis, seems to me to

succeed as well as any other method. Of course, it is important that they should not attempt to analyze their feelings, as this effort in itself prevents the limitation of consciousness so much desired.

There is one point to which I should draw attention in considering the subject of neurasthenia. Hypnotism cannot supplant the ordinary treatment of feeding and rest. While it may, and does in many cases, relieve the distressing mental symptoms, physical treatment of what, after all, is largely a physical condition, should not be neglected. In my own cases of failure it is probable that the impossibility of enforcing rest, owing to various circumstances, may account for the absence of improvement.

3. *Primary Vaginismus, etc.* — One complaint, primary vaginismus, is certainly often due to hysteria, or some allied state. It is sometimes, at any rate, a simple functional nervous condition corresponding to a dominant mental impression which the patient cannot conquer without assistance. I suppose that the treatment generally advocated in the gynæcological textbooks acts, if ever it does succeed, as a means of suggestion; but suggestion by operative measures does not appear to have any advantages over that given directly.

I suppose that the general experience of medical men is much the same as my own—viz., that with very few patients indeed are these primary cases improved by mechanical means. When one considers how much real misery this condition may and often

does cause, it seems a pity that the psychical aspect and the psychical means of cure have not been more intelligently and generally recognized. Personally, I have treated three cases of vaginismus by suggestion. In each there was absolute dyspareunia, and all recovered under treatment. The long duration of the condition seemed to be no bar to cure. The cases were of two and a half, three and a half, and seven and a half years' standing. While the first two cases took respectively five and four weeks to effect a cure, the last—of seven and a half years' duration—was readily cured in three hypnotic sittings of less than ten minutes each.

It is of great importance to realize the mental cause of the condition in every case, for otherwise we cannot be at all sure of ending the trouble.

One of my cases was brought up in absolute ignorance of her sexual life, and was married without having it explained to her. The shock was violent enough to bring on this condition, which lasted three and a half years. I found that she instinctively regarded the whole sexual rôle with a kind of horror, and in addition felt that it was "sinful," for she had been reared in a very religious atmosphere. The notion of sin, though she knew it to be quite erroneous, was nevertheless extremely powerful, and I first directed all treatment to the removal of this one obsession, partly by conversation and partly by suggestion in light hypnosis. With the disappearance of the false idea, which it took twelve days to destroy,

the chief obstacle to cure vanished, and in less than three weeks the patient was well. Similarly, in the other cases, emotions seemed greatly concerned with the appearance of the condition.

Not only does suggestion act on sufferers from vaginismus, but it is also of great avail in those cases of absence of sexual feeling which are often the cause of so much unhappiness in married life. In one case of this kind the result was very striking. Mrs. D., married eight years, had had no children. During the whole of her married life she had never experienced orgasm, and her only attitude towards her wedded duties was that of repugnance. Under the influence of suggestion, treatment having been carried on for about three weeks, her natural feelings awoke, and she now has two children. It is noticeable that in her case orgasm occurred after treatment, and I am inclined to attribute her subsequent conceptions to this factor. In two other cases sexual feeling appeared after very brief treatment, in one case after the first hypnosis.

Impotence in the male is also often readily curable, but I have had failures as well as successes. One, who refused to try hypnotism, and who had been impotent ever since his marriage, which happened three years before I saw him, I treated by simple suggestion in ordinary conversation, using Dubois' method. I saw him twice every week, but it took me three and a half months to effect a cure. I may mention that he had been treated for the whole term

of his married life by another medical man who did not try suggestion, and who had utterly failed.

Two others were cured, one in eight days, and the other in less than three weeks. My other two cases were failures. One developed locomotor ataxy two years after I saw him, so that possibly nervous trouble of an organic kind was really at the root of the mischief. The other case of failure was due to some psychological cause of which I am ignorant, for he was a fairly good hypnotic subject.

4. *Dipsomania.*—One of the most important pathological conditions to which hypnotism has carried relief is dipsomania. The alleviation of this terrible disease is certainly among its greatest triumphs. But in one sense its achievements in this direction can hardly be regarded as really cures. We cannot make the dipsomaniac a normal man again. He will never be able to drink in moderation; we can only change him to a total abstainer. That is to say, he will probably always retain the neurosis, which will, however, remain dormant so long, but only so long, as he takes no alcohol at all. The neurosis itself appears to be absolutely invincible, either by hypnotism or any other means. All that we do is to help the dipsomaniac to help himself, but that in many cases is sufficient to redeem him from all the evils which result from his weakness. Both in dipsomania and in the other drug manias the intention is to save the patient from being compelled to take the particular drug to which he has fallen a victim,

and so to aid him to abstain completely. This we can do by suggesting

(*a*) Absence of all craving.

(*b*) An increased power of self-control, to enable him to keep his resolution of total abstinence. If the patient be a fairly good subject, we may successfully suggest

(*c*) An active dislike of alcohol. One may even induce the patient to vomit if he takes alcohol.

Curiously enough, it happened that one of my patients had a relapse in which the effect of this suggestion remained, though the suggestion of total abstinence had failed. He drank, notwithstanding the fact that it made him very sick, so that one cannot trust to this suggestion, even when it takes effect, as a sure preventive.

But in all cases the wish to be cured, and the determination to remain an abstainer if possible, must come from the man himself. Whether it is ever possible to make a man honestly wish to be cured if he does not desire it of his own accord, or to impose abstinence on a man who does not want to be cured, I do not know. But practically it is impossible, and I failed in one case to influence an unwilling dipsomaniac for good to the very smallest degree, though he was readily hypnotized to the deepest state, and could be made to carry out other post-hypnotic suggestions with the greatest ease.

In treating this particular disease there is one psychical ally which incalculably increases one's

chances of success. Real sympathy will impart to these sufferers a power of struggle which can be realized only by those who have had much to do with them. Many of them consider themselves outcasts, and many have largely lost self-respect, two impressions which extremely weaken their energy in battling with their disease. But if they can be made to understand that they are overthrown by illness, not vice, and that the physician regards them as simply victims of a disease, deserving all the help and sympathy which he can give, very much will have been gained. I have seen cases recover under treatment who, I am convinced, would have been able to cure themselves years before, had they not been rebuffed as despicable, rather than aided and encouraged during their first wrestling with the disease before it had assumed irresistible strength.

More especially is this sympathy necessary to cases that relapse, in order to prevent despair. In many a case I have succeeded in effecting a cure—possibly permanent, at any rate now of some years' duration—by steadily restoring hope after defeat. Some, whom I tried experimentally in 1887 and 1888, and who had relapses during treatment, remained well from ten to fourteen years, after which I lost sight of them.

The distinguishing characteristic of the dipsomaniac is, of course, the occurrence of an unconquerable craving for alcohol, or an impulse to take it, which compels him to satisfy it to excess, often for days together In general, after a few days, the craving ceases sud-

denly, and the patient is then freed from the desire for alcohol until the next attack. But the way in which the craving returns, the duration of the attacks, and the subsequent dislike of liquor, seem to vary much in different cases. In some the craving will recur with apparent spontaneity during an interval of total abstinence, without any discoverable cause. I have known a patient suddenly seized by it as he was walking in the street, though he contrived on that occasion to resist, owing perhaps to previous hypnotic treatment. More often than not, however, some definite cause can be named, such as exhaustion after unusual exertion, or an unwonted mental stress. Others never have craving at all, unless they actually provoke it by taking liquor. In one case, which I eventually succeeded in curing, an almost intolerable craving raged every night between the hours of seven and nine. Some victims, too, habitually drink to excess, the attacks being marked only by bouts of greater excess than usual. This was the case with one of my patients, with marked heredity, who drank for thirty years, and who also was cured in the end.

But whatever form the disease takes, if alcohol is absorbed, even when no craving is present, it seems practically always to arouse the longing, often at once, though sometimes not immediately, as in a case under my care, whose craving reappears in from twelve to twenty-four hours after a glass of whisky. The only possible hope for these cases lies in unbroken abstinence.

In treating dipsomaniacs, I always ascertain, if possible, the particular factor which usually excites an attack, and make suggestions accordingly. Thus, in one case—cured now for some five years—where the exhaustion brought on by over-exertion was a constantly recurring cause, I suggested that these fits of exhaustion should create, not a craving for alcohol, but a desire for coffee, and the plan succeeded very well.

As far as my own experience goes, the most difficult cases are not those who are liable to attacks of spontaneous craving during periods of abstinence, but those in whom the craving appears only after the taking of alcohol. For while the former may be persons of considerable determination, the latter have often scarcely any resolution at all, so that there is but little reserve will-power to respond to suggestion. They are perfectly aware that, if they drink at all, they must drink to excess, yet they cannot resist any pressing offer of alcohol; and I have known some who, without any real craving, would start drinking by themselves simply because of some slight worry, or even because they were bored with not having enough to do.

In treating these cases I insist that, if possible, someone should assume charge of the patient for the first week until suggestion has had time to take effect, the guardian's duty being to make sure that no alcohol is taken. I usually hypnotize the patient every day for a week, after which he is permitted to

go about by himself. I then see him twice during the ensuing week, and after that once a week for a month. After this I prefer to see him at stated intervals of a month or six weeks for an indefinite period; but this is not really always necessary. Some of my worst cases, who have remained cured now for several years, I have never seen at all after the first week or ten days of treatment. But these periodic visits are, I think, an advisable precautionary measure. Also, I always request patients to come back at once if they ever feel any desire, however slight, for alcohol. Many will do this, but some seem unable to decide when the moment of danger arrives, and these are the cases which, in my own practice, usually have relapses. Regular systematic treatment at definite intervals is certainly surer than the more indefinite arrangement.

One case is of interest. The patient was a lady who drank only at her periods, but then to such great excess that she was constantly found helpless in the streets. The periods were irregular, and lasted nine days. When menstruation began she became intensely depressed, and this melancholy seems to have been the cause of her drinking. The disease had lasted for over ten years. So far as I could ascertain she could drink in moderation between times, no attack ever occurring except at her periods, this being the only patient in my personal experience who could take alcohol for an appreciable time without bringing on an attack.

Hypnotized ten times in all, she has not relapsed

for three years, and I have every hope that her cure will be permanent. Not only did the drinking cease, but by suggestion the periods were made to commence every fourth Saturday, and to last only three days instead of nine as formerly. This suggestion was carried out, I believe, for twenty-two months, when, owing to the onset of the menopause, the periods again became irregular; but there has been no return of alcoholism.

Here is a good example of the result of suggestion in a case of long-standing dipsomania. Mr. G., aged fifty-two, had been a victim of the disease for over thirty years. His mother had died of drink, and some of his brothers also. He habitually drank too much, usually whisky, and had recurring fits of still greater excess. I was asked by his medical attendant to see him while he was recovering from a specially bad attack, which had made him exceedingly ill. He had twice tried Normyl treatment, but on both occasions abstained from drink only for a week or two after leaving it off. I hypnotized him altogether ten times, and suggested that he should have no craving, should dislike even the smell of liquor, and that his resolution and will-power should increase sufficiently to enable him to resist any temptation to which he could possibly be subjected. That was nearly three years ago, and since that time he has never touched liquor. More than this, he dislikes the smell of whisky so much that, if hot whisky-and-water are brought where he is, he can hardly endure the odour, and has actually

been obliged to leave the room in consequence. I never treated him again after the first month, so that the result must be due to the original suggestions.

The next case illustrates the fact that one can influence these patients for good only if they co-operate with us.

Mr. F. had been a butler, and for some seven years had given way to habits of intemperance. He came to me at his master's bidding, and, though he expressed himself willing to become an abstainer, subsequent events showed that he really meant to be, not an abstainer, but a moderate drinker. He was readily hypnotized, passing at even the first attempt into deep somnambulism; and it was quite easy to induce hallucinations of all kinds, and to make him perform almost any post-hypnotic act. When questioned during his sleep he always denied that he was taking any alcohol whatever, and it was only after some weeks of treatment that he had a violent outbreak. I then found that he had been drinking, though in moderation, all the time that he was being treated, and he confessed that he did not wish to abstain completely. He was afterwards in a home for three years, and came out only to begin drinking again immediately. The case is interesting, for it shows that a patient may accept all the suggestions except the one that really matters. He was actually made to write to his master, and confess to taking wine, etc., to which he had no right, yet I could not influence his drinking habits to the slightest degree. It also

illustrates the fact that a man can lie as readily in hypnosis as in his normal condition.

While most cases of dipsomania are easily influenced, I have found those in which there has been a head injury very difficult to cure. I have had three such cases. One proved quite insusceptible; one relapsed hopelessly time after time, and, I believe, afterwards lost his reason; and the third, though readily made somnambulistic, refused all post-hypnotic suggestions of every kind. As is well known, these traumatic cases frequently become insane if they drink to excess.

I have during the last eighteen months had two patients who had before been quite ineffectively treated by direct suggestion without hypnosis, one by "passive attention" and one by ordinary simple suggestion. Yet both cases have done well under treatment by actual hypnotism, though one of them may, I fear, not prove permanently curable, owing to the presence of some nervous condition which may be epileptic in nature. The other I have had under my care for only a few weeks, but improvement, as evidenced by the cessation of haunting ideas of drink, showed itself at once. After treatment by suggestion without hypnosis the interval between the cessation of treatment and the return of inebriety was only four days.

Occasionally the hostility of circumstances may dissipate and annul all the beneficial effects of the treatment, as the following case reveals: Mr. H., a tradesman, came to see me some years ago. He had

drunk to excess for very many years, probably over twenty-five, had tried to cure himself over and over again, but had succeeded in abstaining only for about a week at the longest. Under treatment he remained an abstainer for about two months, and then relapsed. But he was tempted to drink by another person, who had much to gain by preventing his cure. I succeeded several times in suspending his habit, but each time my efforts were thwarted by the persistence of this counter-influence; and, after I came to live in London and could see him no more, he relapsed hopelessly, and eventually died. Even hypnotic suggestion cannot always cope with such circumstances as these.

Another case was that of a man who had been a servant, but who, when over-tired, always had an overmastering craving for drink. He then became hopelessly intoxicated, lost one situation after another, and was at last reduced to a state of great misery, having behaved in this way for about eleven years. He was brought to me five years ago; and, though he could not even be watched or helped in any other way, he has never from the day on which I first saw him, touched a single drop of alcohol, and has ever since been in good employment. It was in his case that I suggested that coffee should take the place of alcohol when he was exhausted by overwork, and I generally find this a most effective substitute.

5. *Morphinomania.*—The results in the treatment of morphinomania are not nearly equal to those obtained

in alcoholism, as far as I have seen; and the experience of others corroborates mine. The treatment, when the drug is taken subcutaneously, presents many difficulties, and relapses are frequent. Wetterstrand's successes, on the other hand, were decidedly numerous. Thus, out of thirty-eight cases, he claimed to have cured no fewer than twenty-eight. I have generally found these cases very difficult to hypnotize, unless they were under the influence of the drug. Possibly Wetterstrand's method of hypnosis explains his success; he hypnotized his subjects in view of each other, and the suggestion induced by the sight of others going into the hypnotic condition was so overwhelmingly powerful that he hardly ever failed to influence his patients to some extent.

The patient must be placed under the charge of a trustworthy nurse, and the morphia withdrawn gradually. It is important to induce deep hypnosis if possible. Prolonged hypnotic sleep is the condition likeliest to end well. I have cured one case who was suffering acutely at the time from recurrent disease of the mastoid. She died about two years later from uterine cancer, but the craving did not return. In one case, that of a clergyman, who was actually taking thirty grains a day, I succeeded in reducing the dose to less than three grains, though he was not in a nursing home, and was still going about his ordinary work. But the diminution led to a good deal of diarrhœa and constant abdominal pain, which I could not allay so long as he remained at work, and

he decided to discontinue treatment. I have had four cases in American medical men. Two seem to have remained well for the last year, but the other two relapsed soon after treatment was discontinued.

6. *Stammering.*—Stammering is certainly very often curable by suggestion, but, so far as I have seen, generally not without hypnosis. The hypnosis, however, need not be deep, the second stage, that in which voluntary movements can be inhibited, often being sufficient. Out of my twelve cases six have been completely cured. Of the remaining six two showed no sign of improvement; one was very much better, though not completely cured; another is nearly cured, though he sometimes still stammers a little, and two are still under treatment. Of these, one is showing slight signs of improvement, and the other is already markedly better.

The most difficult case of all was an undergraduate on whom Langley and I experimented. He had stammered all his life, and was, I think, the worst speaker that I have ever seen. When he tried to speak his whole body was convulsed, and very often he could not speak at all. The last time we experimented with him we tried the effect of suggestion on his stammer. He was hypnotized, and made to read aloud. At first he stammered badly, but, as his hypnotic state gradually deepened under the influence of passes, he ceased to do so, and the suggestion was made that he would stammer no more. I did not see him again for three years, when I met him accident-

ally, and he then told me that he had never stammered since.

One patient was a German surgeon, who was a bad stammerer, but who got well in about three weeks. In this case I was very kindly helped by the Hon. E. Feilding, who on one occasion hypnotized him for me, and suggested that he should speak automatically, without interfering with his speaking centre by voluntary efforts. I then taught him to hypnotize himself, and to make suggestions to himself when in that condition. He was well in three weeks.

Another sufferer was a young man who was training for the Wesleyan ministry. He stammered so badly that he was informed that he must give up his career unless he could improve his speech. In less than three weeks his stammer had become unnoticeable, and then vanished entirely.

Another case did not stammer at all for two days after the first trial, but the affliction then returned slightly. I presume that he got well, for I never saw him again after the fourth treatment. Neither of the two last subjects passed beyond the first stage of hypnosis.

Still another case was that of a lady, aged twenty-nine, who was cured of a lifelong stammer after four interviews. This patient was so lightly hypnotized that she displayed no other signs of being influenced than a disinclination, which hardly amounted to inability, to open her eyes.

The chief difficulty in treating these cases lies in determining exactly what suggestions to make to the individual patients. It is not easy to diagnose the precise cause of the different stammers; but I believe that a large number, if they can only be made to forget to stammer, can speak quite easily. Others interfere with the automatic action of their speaking centres. But I have been quite in the dark as to the cause of the stammer in some of these cases, and I cannot help thinking that certain failures might have been successes if only I had discovered the appropriate suggestion to make. However, the results so far are very encouraging. In all but two of my cases the treatment has been of short duration, lasting less than three weeks.

7. *Insomnia.*—For insomnia, hypnosis, when it can be induced, offers an almost certain prospect of cure. But these cases are frequently difficult to hypnotize. It has often seemed to me that the insomnia and the insusceptibility to hypnosis may arise from a common cause. These patients not uncommonly say that, however much they try, they cannot go to sleep; and I have succeeded in curing some of them without hypnosis, by instructing them to go to bed simply with the intention of resting, and not of sleeping at all. The effort to sleep seems to awaken a powerful contrary self-suggestion that sleep will be impossible. After lying awake for a short time the sufferers become more and more penetrated with the idea that they will be unable to sleep, and the result is that they really do

remain awake. In three cases of this condition I managed to persuade the patients, without hypnosis, to banish all ideas of sleep when they went to bed, and in two the result was that the insomnia disappeared. The third, however, showed only some improvement: the insomnia was much less constant than before, but it was not cured. Probably this same habit of trying to sleep, which is almost fatal to the induction of hypnosis, causes the difficulty in treating so many of them. But to some patients natural sleep may be successfully suggested without any hypnosis whatever. Thus, to one patient, a lady with insomnia of several months' standing, I merely suggested that she would sleep the moment she put her head on the pillow, but did not hypnotize her. She slept perfectly when she went to bed that night, and continued to do so without any fresh suggestion. But in general I have found that without hypnosis such suggestions are made in vain.

The following case is interesting, because, though I could not remove the original cause of the insomnia, I was nevertheless able to put an end to the insomnia itself: Mrs. ——, forty-six, married, came to me for depression and insomnia. She was hypnotized on the third occasion to the second stage, and her sleep returned at once. She had suffered from insomnia, and, her medical man thought, neurasthenia also, for about six months. The depression which was the cause of her insomnia was due to some permanent cause of whose nature I am unaware.

However, I managed to alleviate the melancholy also for a time, but this returned a little while after the treatment was discontinued, though without the insomnia.

One is not infrequently summoned to send to sleep a patient who is acutely ill, and for whom slumber is urgently and immediately necessary. But it is almost always impossible to induce sleep in a fresh subject at a moment's notice, under even the most favourable conditions. Besides, in only about 20 per cent. of people can a deep hypnotic sleep be induced at all, after repeated hypnosis. Naturally, therefore, these cases almost always turn out failures. If, however, the patient has been hypnotized on some previous occasion, it is more likely that he can be hypnotized again at such an emergency.

8. *Enuresis Nocturna.*—Enuresis nocturna, though sometimes readily curable, is often difficult to treat by suggestion, owing to the extremely deep sleep in which it usually occurs. Bramwell states that, with one exception, he has always succeeded when genuine hypnosis could be induced. I have had but little experience in treating this particular complaint, but, so far as it goes, it bears out his results. Though, of course, most of these cases recover spontaneously as they get older, some do not. It is a not uncommon complaint among soldiers. I always insist on the observance of the usual precautions as to abstaining from taking fluid too near bedtime, and suggest that the subjects will wake up when they feel the desire to

pass water, and that it will be impossible for them to do so when asleep.

9. *Constipation.*—Forel names constipation as the typical functional disorder lending itself to treatment by suggestion. Probably many medical men have used suggestion for this disorder in the form of inert medicine described as aperient. It seems quite possible that the chief agent in much of the homœopathic pharmacy may be the labelling on the bottles. But we can often cure even chronic constipation quite readily by means of direct hypnotic suggestion.

The following case shows how very definite the results of a suggestion controlling the movements of the bowels may be: Mrs. R., aged thirty-five, came to consult me for intractable insomnia arising from mental anxiety, which had been very distressing for several weeks. I found that all her life she had been constipated, and for many years had never acted without an aperient. I did not hypnotize her, but suggested that she would sleep the moment she put her head on the pillow, and that her bowels would act next day and every day at ten o'clock in the morning; and requested her to come to see me again in three or four days' time. When I next saw her, she said that all had happened as I had suggested—that she slept the moment she went to bed, and that her bowels acted each day at ten o'clock. Then she added: "But would you mind making it half-past nine instead of ten o'clock. Ten is so inconvenient."

In another case—that of a lady of thirty-eight, also of lifelong duration—I succeeded in putting an end to the constipation at once. She was hypnotized very lightly, being merely unable to open her eyes. But after five months the trouble returned, and though it was again relieved by suggestion, the cure has not proved lasting. Of five cases which I have seen lately, two are up to the present quite well, one was temporarily improved, and two were quite uninfluenced. While one of those failures could not be hypnotized at all, it is noteworthy that one was a really good subject, passing readily into deep somnambulism, while the two who have been most satisfactory could be only lightly hypnotized. So that in this malady success depends on some factor inherent in the case rather than on the depth of hypnosis.

It is sometimes best not to try at once to obtain a regular daily action, but to suggest an action every second or third day, and gradually to decrease the interval. In some cases the most one can do is to get an action every other day. This I have done in several cases, but long before I specialized in hypnotism, and I have no notes of them.

10. *Diarrhœa.*—As might be expected, diarrhœa of nervous origin will readily yield to suggestion. Mr. A., a clerk, aged twenty-eight, was subject to fits of diarrhœa from extremely slight causes, and had suffered in this way ever since his school days. If he had to interview one of his chiefs he always had an attack, and the slightest deviation from his normal

life, even the prospect of a journey, was sure to have this result. He was obviously of a very nervous temperament, and the idea of his visit to me brought on a severe paroxysm, his bowels acting five times that morning before I saw him. Hypnotized four times in June, 1908, he passed into deep somnambulism, and his nervous diarrhœa at once ceased. The causes which used to agitate him in this way were annulled, but slight exposure to cold seems to have been still followed by an attack. He left for South Africa shortly afterwards, and I hear from him that he remains well, though cold yet affects him.

Lloyd Tuckey records a striking instance of cure of chronic nervous diarrhœa in a patient aged seventy-two, who had been afflicted for many years, the disease dating from the time of the Crimean War.

11. *Obsessions.*—Many cures of patients suffering from obsessions have been reported. But I do not know the percentage of successes to failures in the treatment of disorders of this kind. I should say from my own observation that while some common forms, such as agoraphobia and claustrophobia, give fair results, others, such as strong imperative ideas, are as a rule uninfluenced by suggestion. Dr. Maurice Craig thinks that hypnotism does not give good results in imperative ideas. For instance, the man who has constantly to wash his hands for fear of infection is very difficult to relieve. I have had two such cases of some years' duration in medical men. One improved for a time, but was unable to keep up

regular treatment, and eventually relapsed to a worse condition than before. The other, who had suffered for about six months only, recovered rapidly; but in his case there had always been intervals, sometimes of a week, during which the obsession had spontaneously disappeared.

In a case of claustrophobia, accompanied by imperative ideas, two years' treatment by another medical man and eighteen months by myself have failed to make any real impression, though the subject can be deeply hypnotized. The case, however, is complicated by other phobias, extreme dread of London fog being one of them. Yet, when I made the patient take a long holiday away from his work he improved greatly, though the improvement has shown signs of diminution since he returned to labour.

However, the successes are sufficient to make it worth while to try suggestion in this kind of case. But the whole subject of obsessions and imperative ideas is not yet perfectly understood. In my own cases I have succeeded only when I could induce hypnosis, and not always then. But I ought in fairness to add that I have never attempted prolonged treatment without hypnosis.

12. *Epilepsy.*—I have had very little experience of the treatment of this complaint by suggestion. I have tried it in one case with no improvement. In another, that of a young man, aged twenty-six, who had suffered for twelve years, and who had on the

average one fit every eight days, the fits diminished in frequency, so that they averaged about one a month; but I lost sight of him six months after treatment, and do not know how far the improvement has been permanent. Bramwell states that his results are encouraging, but not conclusive; and Lloyd Tuckey records cases of marked improvement. Wetterstrand and others also report good results. Possibly prolonged sleep may be more beneficial than suggestion with short séances. Wetterstrand sometimes kept his patients asleep for weeks at a time.

13. *Sexual Disorders.*—Bad sexual habits are often much improved by suggestion. Even with very young children this is true, though the treatment may take some time to effect a complete cure, and disappointing relapses are common. But in children these habits may frequently be finally eradicated by patience and persistence in treatment.

In older people the condition can generally be improved, but some cases seem quite impenetrable to influence even when hypnosis is ready and deep. In one case, that of an adult female, though improvement was very slow, a complete cure resulted at last; and two years afterwards she was married. I have had several cases of young children. Miss M., aged seven and a half, was sent to me by her medical man, having masturbated to excess for over a year. It seems astonishing to find cases as young as this, but I believe they are not uncommon. She had been taught the habit by another child. The second time

I saw her she passed at once into a light sleep, followed by amnesia. I saw her every day for a week, and then twice a week for a fortnight. She improved greatly, remaining well for nearly a month, when a bad relapse occurred. I then instructed her governess, of whom she was very fond, how to hypnotize her. This she did under my direction, and succeeded perfectly, so I told her to hypnotize the child when she went to bed at night. In a few days all traces of the habit vanished, and, though there have been slight relapses, she is extremely improved, and of herself fights against the evil with all her might. Though not absolutely cured, she is immeasurably better. Another little girl, aged nine, yielded much more readily, and has had no relapse since she was treated two and a half years ago. It is of interest to note that I got no improvement until the end of the first week, when I managed to induce somnambulism, and from that day the habit ceased.

The male patients whom I have treated have all been over nineteen years of age. Of seven cases one was quite unimproved, three were cured completely, and three greatly improved. Thus, in one of the improved cases, the habit used to be indulged in from three to five times a day, but now only once a week at most, and sometimes only once in three weeks.

I do not propose to say much here of the grosser forms of sexual aberration. I have treated these cases with varying success, some yielding readily, but most of them with great difficulty, and only after

long periods of treatment. Some, I believe, cannot be improved at all. I found in one case, in whom hypnosis was induced only after some weeks' trial, that improvement then followed immediately.

14. *Sea-Sickness.*—Sea-sickness can often be successfully prevented. The following case occurred in my own practice. Miss M., aged thirty-five, wished to go on a voyage to Cuba. She was an extremely bad sailor, and suffered severely every time she went on the sea. I saw her for a fortnight, six times in all, just before she sailed. She was not sick, nor did she feel sick the whole time, though the sea was occasionally very rough; but she suffered severely from headache. She also complained that the slightest noise would rouse her up from her sleep at night, and this symptom I failed to relieve. She was not a good subject, reaching only the first stage of hypnosis. Many successes are reported from abroad. There is little doubt that hypnotism is often efficacious in this complaint.

15. *Chorea.*—Chorea has been successfully treated in many cases. Bramwell reports seven cases of complete recovery, and other observers record numerous examples of cure.

16. *Insanity.*—The results in insanity are not encouraging, at any rate in this country. But there have been successes, though the failures far outweigh them. Woods, in 1907, reported several cases of cure, comprising melancholia, puerperal mania, and ordinary mania. Bramwell tried eight cases, but in only three

was he able to induce hypnosis. In two of these the insanity was unaffected, though other symptoms were somewhat relieved. The third recovered, and from the first day of treatment began to take her food, having previously been fed artificially. Liébeault, Voisin, and others, also record successes, but insane cases are very difficult to hypnotize.

17. *Skin Diseases.*—Of other and rarer complaints which have been treated by suggestion, I shall not here speak. Several, such as the cure of eczema and pruritus, especially the latter, are of interest ; but except for three cases of pruritus I have no experience of them. Many have reported cures of these forms of skin disease.

V. Prolonged Sleep.

Of late years many observers have insisted on the value of prolonged sleep in treatment by hypnotism. These cases, who must, of course, be capable of somnambulism, must become the care of a nurse, and are put *en rapport* with her. The suggestion of sleep should be repeated frequently during the first day or two, else the patient will be liable to wake spontaneously. The bowels and bladder are regulated by suggestion, and the patient is fed at fixed intervals without being aroused. There seems to be no limit to the time during which a patient may be kept asleep in this way. The benefits are in part owing to the complete rest which the hypnotic sleep gives the patient. The method is specially valuable in

treating cases of morphinomania, the patient being kept asleep during the gradual withdrawal of the drug, and so saved much unnecessary suffering.

VI. Anæsthesia.

Suggested anæsthesia has been applied to various conditions. It has played the part of an anæsthetic in surgical operations, some of them of great severity, and has also been used to relieve pain, such as that of neuralgia, headache, and toothache, and even the agony caused by cancer. Confinements may also be rendered painless, without any of the disadvantages attendant on the use of chloroform.

As a rule, one cannot remove pain unless the patient has been trained by hypnotizations on previous occasions. But this is not always necessary. Many years ago, while at Cambridge, I happened one evening to call on Dr. W. H. Gaskell. He told me that his children's nurse was suffering from raging toothache, which had kept her awake for two nights, and he suggested that I should try to relieve her. She had been crying with pain, and the left side of her face was much swollen. I made her sit down, and told her that she was to look at my eyes, when she would fall asleep. She passed immediately into somnambulism, and I suggested the cessation of the pain, and awoke her. The pain had gone, but it came back in about an hour, this time, however, on the opposite side. I removed it as before, and it never returned. She slept well that night, and

Dr. Gaskell told me that next morning the swelling of her face had subsided.

Dr. Betts Taplin, of Liverpool, records a case in which he has succeeded in relieving the pain of cancer in the stomach. The diagnosis of cancer was confirmed by an exploratory operation. Under treatment by hypnosis, not only has the pain ceased, but the patient has put on flesh, and eats well. Such a result is truly amazing.

As an anæsthetic during dental extraction hypnotism has been successfully employed, but its uncertainty and the necessity of the previous training of the patient are great disadvantages, so that it can never take the place of chloroform and ether. It has, however, as I said, frequently been used as an anæsthetic for confinements, and Dr. Bryan, of Leicester, has employed it most successfully for that purpose. He has also succeeded in regulating the supply of milk by means of suggestion, increasing or diminishing it, and even totally suppressing it at will. Employed thus, hypnotism might be extremely useful in the hands of those in general practice, since it is free from the dangers of chloroform.

Conclusion.

Although hypnotism may do much in beginning a cure, yet in many cases, especially in those which are somewhat vaguely classed as neurasthenias, much more is often required to make the regeneration complete and permanent. Only too many—their name

is legion—owe their troubles to their unhealthy manner of life. Work they regard as an evil to be avoided as much as possible, and when they are sufficiently wealthy to be independent of it, as so many of these patients are, they have no regular occupation of any kind except pleasure-seeking, a pastime which is apt to pall as the years pass by. Distracted by ennui and imprisoned in self, they can remedy their condition only by a complete change of outlook on life, and their one hope of lasting cure lies in work and contact with the realities of life. If they can engender in themselves some human interest, they may forget their own sorrows in those of others. Until we have persuaded these patients to start a new life our work is only half finished. If the Valley of Achor be indeed a door of hope, it is our duty not only to open it and compel the dweller to pass through to the other side, but to lock and bar it against his return. In a word, we must, if possible, induce him to take up some absorbing form of labour, for in work, and work alone, will he find permanent salvation. " ' Je sais aussi,' dit Candide, ' qu'il faut cultiver notre jardin.' . . . ' Travaillons sans raisonner,' dit Martin, ' c'est le seul moyen de rendre la vie supportable.' "

CHAPTER VII

THE CASE AGAINST HYPNOTISM

Danger of unqualified and irresponsible use of hypnotism—Opinion of Moll—Question of liberty of subject to refuse suggestions—Conclusion.

Hypnotism, like nearly every other remedy powerful for good, may be mischievously used; but under the direction and authority of those who are qualified by knowledge and training, it is, I believe, an absolutely safe mode of treatment.

It is true that after hypnosis some patients may complain of heaviness and drowsiness, sometimes, it is said, of slight depression; but these symptoms may always be prevented by care in thoroughly dispelling the hypnosis at the time of awakening. Yet there is no doubt that, when the phenomena are used by travelling hypnotists merely for sensational show purposes, the results may be more harmful; and for this reason, if for no other, it is much to be desired that such exhibitions should be prohibited by law in this country, as they are in almost every other state in Europe. These people impose upon their

subjects a succession of hallucinations of an exciting character, and sometimes do not thoroughly arouse them at the end of the performances. Some allow the subjects to believe that they may be influenced from a distance, and, if they are giving performances for several nights in succession, often compel those whom they find to be highly impressionable on the first occasion to attend the other displays by post-hypnotic suggestion.

Madam Card, who frequently performed in Cambridge, used to compel her undergraduate subjects to come to her séances in this way; and I believe that she herself had an idea that she could call them from afar—at least, I know that many thought she possessed this power.

The following instance exposes the harm which ensued on her proceedings. Mr. S., an undergraduate, attended one of her performances, was readily hypnotized by her, and made to do all kinds of absurd actions, while he also underwent a series of hallucinations, some of them of a more or less disturbing nature. The next day Madam Card left Cambridge. In the evening of that day the unfortunate victim was seized with the idea that she was staying at the Grosvenor Hotel in London, and was irresistibly calling for him. Go he would, but his friends forcibly detained him until the last train had left. He then, however, said that he must walk. I was asked to see him, and by a counter-suggestion cancelled the idea; but he was so much shaken by his experience that he was unable

to undergo his examination on the following day. Presently he was well again, but the case impressed me very much as to the possible danger of hypnotism when carried out by ignorant persons. In other cases, too, Madam Card's subjects were made nervous and excitable for some hours after her performance.

The practice of hypnotism ought to be confined entirely to medical men and to serious and well-qualified scientific investigators. It is too potent an agent to be used as a plaything. Dr. Lloyd Tuckey gives in his book several cases in which harm has been wrought by those itinerant "professors." In one case he quotes Dr. M. J. Nolan's relation of a case of stuperose insanity, which he believes was caused by the ignorant employment of hypnotism, the patient, a drunken and dissipated soldier, broken in health by his excesses, having been hypnotized by a travelling operator. In another case which came under Dr. Tuckey's notice the patient had, after hypnotization, frequent cataleptic fits. In France serious epidemics of hysteria and other nervous affections are said to be observed after the visits of these itinerant showmen. But I know of no instance in which any evil consequence has followed the use of hypnotism by a properly qualified man for therapeutic purposes. It is open to exactly the same objections as other forms of treatment, and to no more, in that its irresponsible and uncomprehending use is likely to be followed by unpleasant and, in some cases, serious effects.

The real dangers of hypnotism, says Moll, are two

in number—the increased tendency to hypnosis, and the heightened susceptibility to suggestion in the waking state. The first, he says, is usually caused by the use of Braid's method for the induction of hypnosis, which, it will be remembered, consists in making the subject fix his gaze for a time on some bright object. For this reason, if for no other, it is ill-suited for medical hypnosis. The other can be guarded against by suggesting to the patient during hypnosis that nobody can hypnotize him against his will, and that nobody can enforce suggestions upon him while he is awake—the surest way, says Moll, to avoid this danger.

The question has been raised whether it may not be possible by suggestion to compel a subject to carry out some criminal act. Clearly this would constitute a real danger only if the hypnotizer were of such a character as to be capable of suggesting a crime, and, as I imagine that no one would willingly be hypnotized by a person of doubtful reputation, this does not appear to be a very valid objection to the medical use of hypnotic suggestion. But the question is an interesting one, as it is possible that the plea of hypnotic influence might be raised to shield the accused in a criminal trial. Authorities are not agreed as to whether this might be a real defence or not. Bramwell states that even in somnambulism he has never known a patient accept suggestions which would not have been accepted in normal life, and he gives instances where subjects have refused

even trivial suggestions, apparently because they conflicted with their ideas of propriety.

Forel, who has tried to make subjects commit experimental crimes, is inclined to think that these could be accomplished in waking life. Thus one subject was made, by suggestion, to fire twice at a man, the revolver being loaded, unknown to him, with blank cartridge. These experiments, however, are not conclusive, for it is impossible to be sure that the subject does not realize that they *are* only experiments, from which the operator has taken good care to eliminate any possibility of wrongdoing.

It is of interest to note that in no recorded case, as far as I know, has a subject in somnambulism ever refused an inhibitory suggestion, such as paralysis of a limb or the inability to carry out a given action. Personally, I doubt very much whether one could do so, and, until it is demonstrated that one can, I do not regard it as proved that patients can accept or reject every kind of suggestion at will. And even though it is certain that some subjects can resist certain imperative suggestions, it does not follow that all subjects can resist all repugnant suggestions.

Everyone with much experience of hypnotism must be familiar with the great variations in the degree of suggestibility in different subjects during somnambulism. It is scarcely surprising that some should be able to resist suggestions, whilst others cannot. The particular suggestions which are easily enforced vary much with different subjects, as also those

suggestions which can be enforced only with difficulty or not at all.

But even if we assume, for the purpose of argument, that some people could be made to commit crimes (or, as has been asserted, to allow themselves to be criminally assaulted), it must be remembered that the number of such subjects must be very small. It may be safely asserted that such events could, under no circumstances, be possible unless the subject were somnambulistic, and under 20 per cent. pass into this condition. Even of these, very few would not at least try to resist such suggestions, and, as has already been shown, some, if not all, would do so successfully.

The question is at present an open one. Many deny altogether the existence of any danger of criminal suggestions, but other equally good authorities consider that the peril is not impossible. I am inclined to agree with Moll, who says: "Yet we must admit the possibility that a crime may be committed in this way, as Eulenburg, Dalley, and Forel insist. On theoretical grounds I believe it is possible with some subjects. There may be much exaggeration. For example, few people are so susceptible as to accept the suggestion of a criminal act without repeated hypnotization. It is also true that many would refuse even after a long hypnotic training."

Liégeois also believed that criminal suggestions were not an impossibility.

But so long as they are recognized, even the slightest

risks of hypnotism can be readily avoided. It is essential that hypnotism should be employed with the same care and the same precaution as are required in the more dangerous process of giving anæsthetics. In each case some scientific knowledge and previous training are the only guarantees of safety, and so long as similar sureties are provided there can be no valid objection to the use of hypnotism as a remedial agent. The risks are few, the inconveniences trifling; and some maladies, such as dipsomania, can often be cured in no other way whatever.

Indeed, hypnotism seems the only kind of therapeutic power that can penetrate a certain obscure province of pathology at all. Only its relieving and strengthening suggestions can dissolve away the mortal matter when the mysterious nexus where the physical and psychical forces intercross becomes a core of anguish and corruption, can unravel the twisted knots of insubstantial yet intolerable pain in the dangerous net of the nerves, and harmonize those discords between bodily and spiritual life that beset a highly artificial and complicated state of civilization. When the senses practise strange tyrannies over the emotions and the will, or when the imaginative and intellectual powers maltreat the body into suppressed treacheries and revolts, suggestion alone seems able to interpose in the confusion of consequent suffering. The dualism of the remedy matches the dualism of the malady; it is an instrument of which the peculiar

nature and the full consolatory virtues are not yet completely realized. The physician in hypnotic suggestion at least need not altogether recoil from the bitter outcry of Macbeth:

> " Canst thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow,
> Raze out the written troubles of the brain,
> And with some sweet oblivious antidote
> Cleanse the stuffed bosom of that perilous stuff
> That weighs upon the heart ?"

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